Alternatives Analysis
Magnuson Park Phase II Development

Prepared for:
U.S. Army Corps of Engineers
Regulatory Branch
4735 E. Marginal Way S.
Seattle, Washington 98124

Prepared by:
Dyanne Sheldon, Manager
Natural Resource Section
Doug Gresham, Wetland Ecologist
Otak, Inc.
10230 NE Points Drive, Suite 400
Kirkland, WA 98033
Otak Project Number 30897

April 6, 2007

Magnuson Park
Alternatives Analysis

Introduction

This alternatives analysis for Phase II, Warren G. Magnuson Park was prepared based on the Section 404(b)(1) Guidelines in 40 CFR Part 230 as required by the Seattle District Corps of Engineers. Seattle Parks and Recreation has made an application to fill six acres of existing palustrine emergent wetland as part of the proposed Phase 2 development of Magnuson Park in Seattle, Washington. Phase 2 includes constructing five athletic fields (four fields to be completed, the sub-grade for the 5th field will be built but budget constraints may preclude immediate completion of the field); re-alignment of the existing cross-park trail, creation of new trails; enhancement of upland and wetland habitats, and creation of new wetland habitat.

The Seattle District of the U.S. Army Corps of Engineers (COE) established jurisdiction over the wetlands in Warren G. Magnuson Park in 2005 relative to Phase 1, the Sports Meadow project. A delineation of the wetlands within the greater Warren G. Magnuson Park site was conducted in 2005, and approved by the Corps of Engineers on October 25, 2005.

Seattle Parks and Recreation submitted a Joint Aquatic Resource Permit Application (JARPA) to the COE for the Phase II project on January 25, 2006. The application for permit # 200600052 was determined to be complete on June, 23, 2006. The Public Notice was published October 20, 2006. Through filling to create fields and infrastructure, plus grading that is necessary to assure appropriate water movement and long-term protection of the wetlands to remain on the site, six (6) acres of palustrine emergent wetland will be lost or altered. The majority of the existing wetland habitats in the Phase 2 area will be preserved, four (4) acres of wetlands will be enhanced, and ten (10) acres of new wetlands will be created. Nearly 12 acres of existing impervious surface in the project area will be removed. The impervious areas to be removed include: existing parking lots and internal roads which are actively used in current conditions; the Commissary Building structure (some of the foot print will remain); and additional paved areas located under soil stockpiles will be removed as part of the project.

The proposed action will cause direct impacts to six acres of palustrine wetland habitat.

Project Purpose

Is two-fold: 1) to create athletic fields within the City of Seattle, adjacent to existing arterial access roads, existing parking, and infrastructure and thereby to meet more of the demand for recreational fields for the citizens of the City of Seattle; and, 2) to improve habitat

functions within on-site wetlands and upland habitats; create structurally complex and species-rich functional upland habitat, create new HGM[1] wetland types, and enhance existing wetlands on-site to improve functions.

It is proposed to create five athletic fields: two baseball fields (one fast pitch baseball and one little-league/softball), two soccer fields, and one rugby field. These fields consist of both grass and synthetic turf surfaces and associated infrastructure such as lighting, storm water drainage systems, and fencing. In addition to the athletic fields, additional passive recreation amenities would include pedestrian/running paths, viewpoints, and access for educational activities along the trails in limited portions of the habitat area.

In conjunction with the fields, a co-dependent action would be to grade new wetlands and regrade some existing wetlands to use the material as sub-grade source for field fill. Creating and improving wetland functions on the site will produce soil that can be used to raise the elevation of the fields. The increase in elevation of the fields will allow surface water to be collected from the fields and directed towards onsite wetlands to improve and maintain wetland hydroperiod. If the fields are not elevated, the water from the sub-drains cannot passively flow through the proposed wetland complex. All upland and wetland habitats within the park should be considered as relatively immature ecosystems, as they have only developed since the Sand Point Naval Air Station was decommissioned in the 1970's.

The geographic scope of the need for athletic fields was conducted city-wide. It was determined through multiple surveys that most users come from north of the Ship Canal, particularly the northeast quadrant of the City. The Alternative Analysis considers locations within existing City Parks, large enough to consider placement of all five fields.

At Magnuson, it is proposed to create these fields in an area of the City of Seattle where demand for athletic fields has been documented by surveys of active users, where existing arterial streets will serve the site, where there is sufficient existing parking so that no new parking lots will be required, where no mature upland or wetland habitats will need to be impacted, and where no historically designated locations will have to be negatively affected.

Project Need

Alternative uses proposed for Naval Air Station, Seattle (popularly known as "Sand Point Naval Air Station") date to the Second World War when then U.S. Senator Magnuson proposed the station as a western Naval Academy campus. Official City of Seattle planning began in 1965 when the entire 340 acre site was still owned and operated by the U.S. Navy. The Seattle Parks Department and the Seattle Planning Commission published the *Outdoor Recreation and Open Space Plan* (1965), and identified the station as a new site for a major park. Since that date Seattle Parks has conducted public meetings, generating successive iterations

[1] HGM: Hydro-geomorphic – a classification of wetlands based on landscape position and source and duration of hydroperiod

of Master Plans, and obtaining public input as to the range of desired uses within Magnuson Park. The outcome of more than 30 years of public input is the current proposed Phase 2 of the Master Plan for Magnuson Park (passed by City Council, 2005). It is proposed to construct active recreation fields and preserve/enhance upland and wetland habitats within the Park. The various long-term visions for the Park, over the three decades, have always included *both* athletic fields and habitat preservation and improvement benefits (among other considered uses).

The proposed Phase 2 project configuration includes five athletic fields. The layout of the fields and access paths, plus accommodating for water movement from the fields through wetlands (in order to maintain or create appropriate wetland hydroperiods), will result in the filling and alteration of six acres of regulated wetland; therefore, the following description of "project need" focuses on the needs for the athletic fields.

Demand for Athletic Fields

Seattle Parks and Recreation (Parks) and organized sport user groups have conducted various surveys in the last six years to attempt to quantify demand and unmet demand for athletic fields in the City, some with specific emphasis in the northeast quadrant of the City (the location of Magnuson Park). A summary of these studies, their findings, and documentation was prepared as a Background Breifing letter response to questions posed to Parks by the Seattle City Council (February 26, 2004). (Attached to this report as Appendix A.) The following is a summation of those findings.

Parks conducted a survey in late 2000 to determine whether there was unmet demand for athletic fields in the City, (see Table A). The survey found that Parks was meeting only approximately 50% of the *reasonable demand*[2] for soccer, baseball and softball fields. Other sports were not reported in Park's 2000 survey as the response rate for other sports was not large enough to be representative. Parks conducted a demographic analysis of sports field users city-wide which found that sixty percent of users live in the north end of the City or play with leagues north of the Ship Canal, most of these in the northeast quadrant of the City.

[2] At the direction of City Council, Parks established that instead of using the actual numbers of respondents, "reasonable demand" should be represented as only 50% of the responses from the survey. See Response 1.(g), in Appendix A.

Table A—Seattle Department of Park and Recreation Sports-Field Survey Results (2000)

	Total Hours to Meet Reasonable Demand	2000 Scheduled Hours
Adults		
Soccer	9,350	7,544
Baseball	1,680	23
Softball	1,871	650
Youth		
Soccer	10,920	2,839
Baseball	6,595	4,927
Softball	2,860	1,576
TOTAL	**33,276**	**17,559**

In 2003, the Seattle Youth Soccer Association with Friends of Athletic Fields conducted a survey of only north end sports field users, specifically only those organizations that have played at Sand Point Magnuson Park. That survey found that Parks was meeting only 42% of the current demand from north end sports field users.

In December, 2002 Parks published the Joint Athletic Facilities Development Program (JAFDP) a program to integrate the improvement of athletic fields associated with the Seattle School District. As part of the preparation of the JAFDP, the City Auditor conducted an audit of athletic field scheduling to confirm Parks assessment of unmet needs (January, 2002). The 2002 auditor's report concluded: "Parks athletic field use (in 2002) is at or near capacity during peak times, which will restrict future field scheduling expansion." In projecting future demand, the 2002 Auditor report cited the following demographic facts:

- Increase of fourteen percent in events scheduled since 1995;
- Consistent interest in traditional sports such as baseball, softball, and track and field;
- Increased popularity of soccer, rugby, fast-pitch softball and ultimate Frisbee;
- Increased interest in new sports for youth and adults;
- Increased interest in year-round play for youth and adults; and
- Seattle School District middle school sports reintroduced.

The reintroduction of sports into the Seattle School District middle schools in the early 2000's has increased demand for the development of new, high quality fields. As youth mature, they are continuing to play the sports they played in middle school, thus increasing the population of adult athletes and increasing field demand. Parks has seen this occur with soccer, and expects the trend to continue with many newly introduced school sports such as lacrosse and ultimate Frisbee. Based on the projections from the funded JAFDP projects, field capacity would increase by 15,341 hours. Since the publication of the 2002 JAFDP,

synthetic, lit fields have been added at Nathan Hale, Rainier Beach, Sealth, Summit and Genessee, and non-lit fields at Ingraham.

The question of assessing need and capacity of available facilities is not a simple assessment. Capacity is most accurately addressed by evaluating capacity during peak times. For example, it would not be an informative or accurate picture to include in the analysis, baseball field capacity in the dead of winter. The approach taken by the City Auditor in the 2002 report assesses capacity by considering the following variables:

- the specific sport,
- the season of use associated with each sport,
- the type of field (grass, sand, synthetic, lit/unlit),
- hours of the day,
- and day of the week

The City Auditor concluded that during peak times Parks fields are at or near capacity. This is especially the situation with synthetic, lit fields. Most of the available field capacity (i.e., unused fields) occurs on weekends. Parks purposefully retains unscheduled time for fields on weekends (at the direction of the City Council) in order to allow casual use of fields by neighbors and families. Second, consistent with weekends generally being family time, there is less demand for fields by adult teams on weekends.

Anticipated Athletic Fields Use at Magnuson Park

The new fields at Magnuson Park would theoretically add 28,652 total hours of aggregate field capacity. However, that is not an accurate reflection of anticipated use as it includes off peak hours/seasons when there is no demand (e.g., baseball fields in winter). In 2000, the existing grass fields at Magnuson were used for a total of 3,712 hours. Since that time, field use has actually decreased due to the deterioration of field quality of the grass fields (on the former Navy athletic fields and Parade Grounds) and the temporary removal of the grass fields in the Sports Meadow due to renovation (Magnuson Phase 1). Based on comparison with comparable fields, Parks expects the net increase of the new fields to be 11,288 hours.

The 2002 funded JAFDP projects were projected to increase field capacity by 15,341 hours; Magnuson Phase 2 is projected to increase field capacity by 11,288 hours. When the total capacity added by the Sand Point Magnuson Park fields is added to the total capacity added by the proposed and funded JAFDP projects Parks has the potential to gain 26,629 additional schedulable hours System-wide in 2003 Parks scheduled 139,000 hours of athletic field use, which was determined to be at roughly 50% of total demand. Thus the additional hours anticipated at Magnuson (11,288 hours) and the JAFDP funded projects (15,341 hours) combined still leaves a significant unmet demand for athletic fields in the City during peak seasons for each sport, during peak hours of the week.

It is part of the directive of Seattle Parks and Recreation to provide adequate sports facilities in the City for a growing population of sports enthusiasts. Parks has documented through

various studies, which were confirmed by independent studies conducted by athletic field supporters that the demand for youth and adult fields exists in the City. Parks has also documented that the majority of field users are north of the Ship Canal.

Magnuson Park: Public Process Overview

The Sand Point Naval Air Station (see Figure 1) was decommissioned in 1971. The public discussion of whether the City should acquire the lands and what might be the range of future uses began in the early-1960's. The first long-range plan for the Air Station was published in 1965 (Seattle Park Department and Seattle Planning Commission). Through subsequent decades of public process, including EIS documents, input from various Citizen Liason groups, Parks' Board and City Council resolutions, negotiations with the Muckleshoot Tribe and National Park Service, and hundreds of public meetings the goals and intent for use Warren G. Magnuson Park has evolved.

Figure 1: Sand Point Naval Air Station, 1950"s

From 1965 through 1989, the City of Seattle City Council approved no less than four major resolutions specifically focused on the long-term goals and use of Sand Point Magnuson Park. A summary is provided below:

- July, 1965: Recreation Plan: Publication of *"Outdoor Recreation and Open Space Plan"* by the Seattle Park Department and Seattle Planning Commission. Identified future acquisition of Naval Air Station for development as 340-acre "major park" with active and passive recreation and habitat/open space uses.
- May 1975: *Sand Point Park Master Plan*: Included proposed development of 75-acre "Interior Lands" for a Sports Meadow for multi-purpose play and team sports, adjoining

tennis courts; a neighborhood park; maintenance complex, and restaurant. Appendices in that document included a statement by Sand Point Park Citizens Committee: "The Park is conceived as an active urban regional park. It is planned to provide for a wide variety of user activities, active as well as passive, organized as well as unstructured."

- June 1, 1976: *Sand Point Park: A Final Statement on Impact*: Proposed action included demolition of structures and runways, development of a sports meadow and drained playfields, North Cove Swimming Beach, boating center, and interior circulation system. Alternatives included the proposal, "More Active or Field Oriented Development", part of the Forward Thrust Development Plan. Of the 196-acre park, it allocated 30-40 acres for field sports, a five-acre neighborhood park, five-acre maintenance complex, and a major restaurant concession. Additional "alternative would be to develop more of the site for group sport facilities".
- January, 1989: *Master Plan Update Magnuson Park*. Of 36 improvement elements, included the development of a wetland to collect drainage from on-site water runoff and provide wildlife sanctuary; construct new sports field area north of Building 193 (Commissary) for up to 4 soccer fields, inclusion of Navy properties to the west for additional sports fields; construction of permanent bleacher seats at new soccer field area; and construction of regulation-size baseball field in the Sports Meadow. Included a statement that the new soccer fields will be "unlit turf and not all-weather material due to neighbor's view/aesthetic considerations."

Then, in 1998/1999 the Mayor of Seattle appointed a Blue Ribbon committee to make a recommendation for the future uses of the Park. The Committee published the "*Report to the Mayor and City Council: Sand Point Blue Ribbon Committee*":(http://www.cityofseattle.net/parks/magnuson/vision.htm#BLUE, http://www.cityofseattle.net/parks/magnuson/docs/SandPointExecSum.pdf). It identified 12 athletic fields (seven ball fields and five soccer fields), (see Figure 2, below from The Citizens Plan). It included a proposal to "restore historic Mud Lake" as an open-water wetland in the interior of the Park that would drain through an open-water surface connection to Lake Washington. The Blue Ribbon study also prioritized siting the athletic fields to the north, close to existing infrastructure and other fields already present on the site. Post the Blue Ribbon Study, the City Council passed another resolution (#29429) directing that all five softball/baseball fields, six outdoor tennis courts, and 3 outdoor basketball courts be lighted; and two soccer fields, "…will be lighted and have all-weather playing surfaces". In addition it directed that two other soccer fields should be lit and have all purpose playing surfaces providing that the Council agrees that impacts to the public from the lighting can be fully mitigated. The Blue Ribbon Committee used The Citizens Plan as the base for the recommendations for the future uses of the site:

> *"The Citizens Plan is the result of an intense public process, incorporating the input and addressing many of the issues, needs and concerns of local neighborhoods, communities, as well as the City of Seattle, the surrounding region, and the Federal Government. The Citizens Plan presents a comprehensive, economic strategy for the management and development of the park, covering today as well as the future."*

Figure 2: Proposed Site Layout, 1999, from The Citizens Plan

The City Council passed yet another resolution (#30181) in June, 2000 to update the 1993 Park Comp plan. The resolution called for improving sports fields playability, including, "Improvements such as synthetic turf and lighting on selected fields will be considered to increase scheduling capacity where appropriate and where adverse neighborhood impacts as identified in public involvement processes can be mitigated. Such improvements will be identified in an update to the Joint Athletic Field Development Program." Element SF3, within the 6-Year Action Plan of the Resolution states, "Develop new sports fields at Sand Point (Magnuson Park) per the 1999 Magnuson Park Concept Design, and provide facilities for softball, baseball, soccer, rugby, and track and field. Provide floodlighting on such fields per the plan."

Throughout 2000 and into 2001, public workshops and meetings were held to discuss and present various iterations of the plans for the Park. In May 31 and June 2, 2001 a Wetland Design Forum was held with invited public, stakeholders representing various groups, and regional wetland experts to discuss the habitat design parameters within the Park. The facilitated meeting included roughly 75 participants divided into small groups to discuss the key design considerations for the habitat zone of the Park. Participants included long-term neighborhood activists, sports-fields enthusiasts, wetland experts, design professionals, and facilitators who crafted three conceptual plans for the habitat zone within the Park. Re-occurring points of consensus was that there should be minimal trails within the "interior" of the habitat zone, that the wetland and upland habitats should be self-sustaining systems; a

high degree of structural diversity in uplands and wetlands would benefit the greatest wildlife functions, and wetlands with a range of HGM classes (hydroperiods) should be included if they could be self-sustaining.

In August, 2001, Seattle Parks and Recreation issued a Declaration of Significance for the proposed project and the Scoping Document was circulated for the EIS process. The public comment period on the scoping ended in September, 2001. Prior to closing the scoping process, two public meetings were held in September to allow the public to provide additional input into the EIS content. A direct mail invitation to these events was sent to 15,000 households in the general vicinity of the Park. In October, 2001 the scoping document was published and available for public comment.

One of the key issues of concern for the citizens near the Park was/is the effects of lighting. Seattle Parks held two night-time lighting demonstrations (October and November, 2001) where various lighting technologies were demonstrated up on high "cherry pickers" to give citizens an opportunity to observe an approximation of some aspects of the lighting (height of standards and full-cut-off lighting could not be fully demonstrated with the available equipment).

The Draft EIS was issued in January, 2002; the public hearing on the DEIS was held in February, 2002. Fifty-five people in attendance at the hearing provided testimony; and over 400 comment letters were received. Comments included, but were not limited to, concerns about the need for the fields, the effects of lighting (on humans and wildlife), the effects of noise (on humans and wildlife), wetland impacts, and traffic. The Final EIS was published in July, 2002.

An appeal (February, 2003) of the adequacy of the EIS resulted in the publication of a Supplemental EIS (March, 2003) focused primarily on noise effects. The appeal hearing (April, 2003) on the Supplemental generated comment from thirty-eight attendees, and many letters/emails of record. The Final Supplemental EIS was published in May, 2003. The Hearing on the Final Supplemental was held in August, 2003 and the Hearing Examiner found that the Supplemental and Final EIS documents fulfilled the adequacy of the SEPA process. (The EIS is available on the City's web page: http://www.cityofseattle.net/parks/magnuson/EIS.htm). An addendum to the Environmental Impact Statement was issued in December, 2003, documenting the changes in impacts based on the changes in the project as it evolved after the FEIS and SEIS were completed.

The City Council approved the current Magnuson Master Plan in June, 2004. Starting in February, 2005, Parks convened a Public Advisory Team (PAT) for Magnuson Park. PAT's insure continued citizen input into the planning process and provide for keeping activist groups informed of the process. For Magnuson Park, the PAT was comprised of representatives from members in the Magnuson Environmental Stewardship Alliance

(MESA), Seattle Audubon, View Ridge Community Council, Pro-Parks Committee, Sand Point Housing, N.E. Little League, and Friends of Athletic Fields. In addition to appointed representatives, the meetings were open to the public for attendance and comments; meetings were regularly attended by Friends of Magnuson Park. PAT were chosen to represent the community groups who had been active participants throughout the long public process for Magnuson. The PAT met nearly monthly until March, 2006. Meetings informed participants of changes in the project details and specifics, gathered input on options for various configurations, and kept the community informed as the project design progressed. Appendix B provides a summary table of the years of public input, documentation, and discourse focused on the development of the Master Plan for Warren G. Magnuson Park.

Alternative Analysis

On-site Alternative

Use of Magnuson Park for mixed uses has been identified as the primary objective for the Park starting with the discussions about potential uses during the decommissioning process of Sand Point Naval Air Station in the 1970's. The layout and configuration of uses within the Park has gone through multiple iterations; the primary objectives are:

- To build new sport fields in an area of the Park already served by existing roads linked to the major arterial of Sand Point Way and to concentrate new fields near existing parking and interior access roads within the Park to preclude having to construct new roads/paved paths to accommodate field users or emergency safety vehicles;
- To create a concentrated grouping of fields in one zone to minimize costs, make efficient use of infrastructure, allow pedestrian pathways to serve as access to more than one field, concentrate high-human use zones on one "edge" of the proposed habitat areas; keep lighting sources concentrated in the Park rather than dispersed over a broader area.
- To maintain the largest continuous habitat zone in the interior of the Park, where feasible, and to create upland habitats that, over time, will form tall forests to screen the more active areas of the Park from the interior habitat zone;
- To use the soil graded from wetland excavation to fill for the sub-base of the fields to create appropriate topographic gradient towards the east to allow the passive gravity-driven flow of surface water from under the fields out into and through the wetlands on the site in order to both maintain existing wetlands and provide appropriate hydroperiods for the created and enhanced wetland habitats;
- To place fields on the site to minimize to the extent feasible impacts to groves of native trees and shrubs, and to existing wetland;
- To improve water quality flowing into Lake Washington by removal of impervious surfaces, day-lighting and treating untreated stormwater, and providing water quality treatment for some pollution generating roadway surfaces in the project area.

The results of applying those criteria to the targeted field configurations at Magnuson Park

would be the loss of six acres of predominantly palustrine emergent wetland habitat. See Figure 3. Loss of wetland habitat would result from filling for athletic fields, pathways, and some grading to assure appropriate slopes are maintained for passive movement of water across the site.

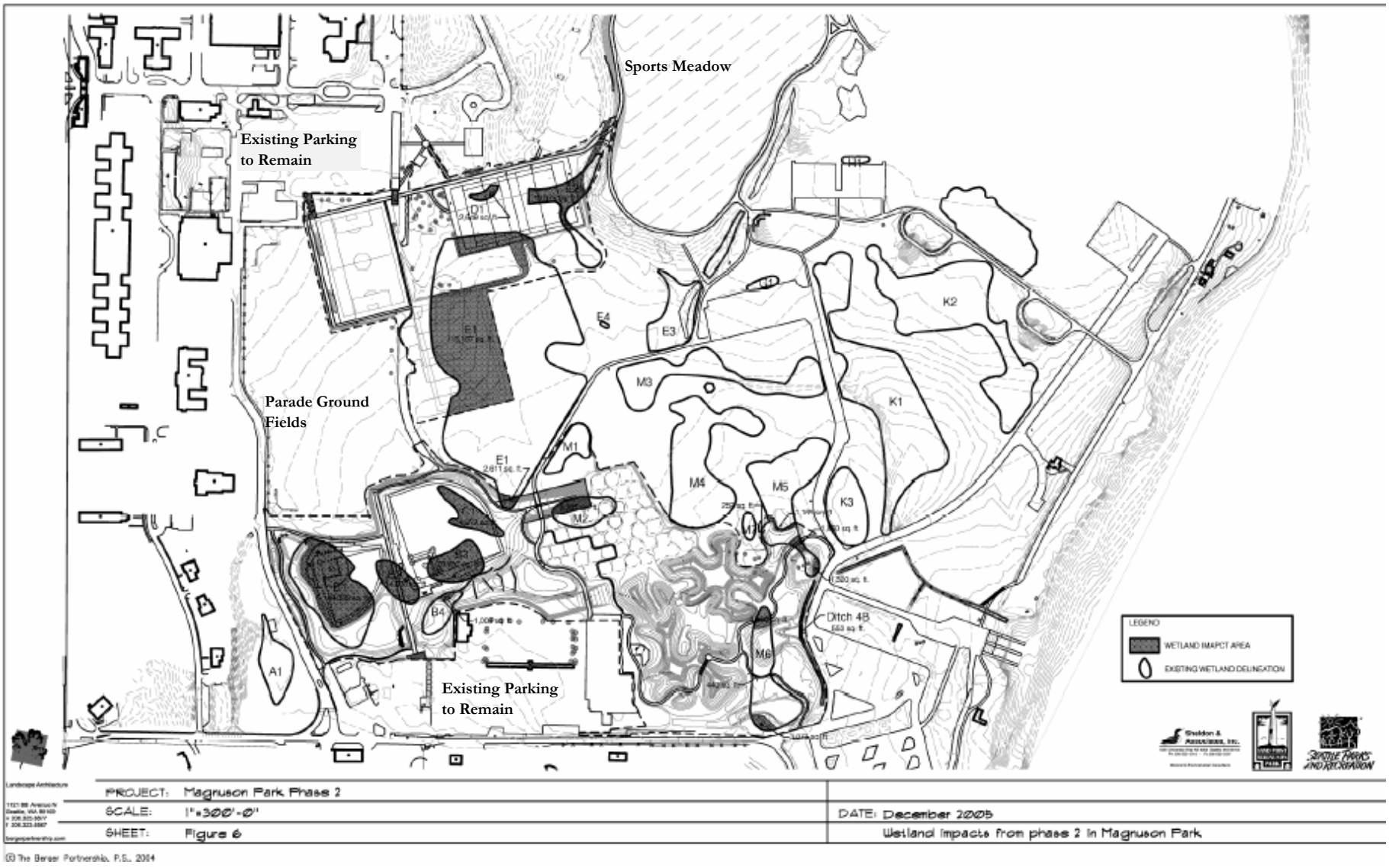
To compensate for the 6 acres of wetland loss it is proposed to create 10 acres of wetland through grading and impoundment of surface water; and to enhance 4 acres of existing wetland by increasing hydroperiods through grading and/or impoundment of surface water plus increasing species richness by planting natives. The Compensation Plan for Magnuson Park (Sheldon & Associates, 2006) is available at: http://www.cityofseattle.net/parks/proparks/projects/MagnusonCP.pdf . The complete JARPA permit application (COE #200600052), the Wetland Delineation Report (Sheldon & Associates, 2005), the Biological Evaluation (Sheldon & Associates, 2006) and other relevant documents for the project are all available on-line at the City's Magnuson web page: http://www.cityofseattle.net/parks/proparks/projects/Magnuson.htm.

Table B provides a summary of the objectives and the method to achieve them for the Proposed Phase 2 project at Magnuson.

Table B: Summary of On-site Objectives and Methods to Achieve for the Proposed Project	
On-site Alternative Objectives	Methods to Achieve Objective
Create a suite of five fields to maximize field use relative to required infrastructure needs	Fields are clustered on the western side of the project area, adjacent to existing access roads and large parking lots. Existing road and trail alignments will be maintained where possible for internal movement between fields
No new roads or parking required to be constructed	Two large parking lots to the northeast of the project area (north of the Parade Ground Fields), and at the south/central project limits will be kept.
Use material graded from wetland creation and enhancement work as sub-base fill for elevating the athletic fields to provide for continued passive sources of water on site.	Material excavated from the wetland habitat areas is slated to be used for sub-base fills for the on-site fills. Fields have to be elevated to allow the surface to drain into an engineered collection system. Water from the fields is then directed out and into the onsite wetland complex to augment flows and assure adequate hydroperiod to maintain existing wetlands and proposed created wetlands.
Existing arterial access without significantly increasing the traffic level-of-service on residential streets	Sand Point Way is a major arterial for this portion of the City; connecting the University of Washington with Lake City; with direct links to I-5 via N.E. 45th and N.E. 65th.
Permanent removal of existing impervious surfaces	Approximately 12 acres of pavement will be removed from the site including parking lots that are actively used and untreated for water quality; pavement under the soil stockpile area just east of the Commissary (south of WL M4, NW of WL M6); and some portions of abandoned taxiways/roads.
Opportunity for treating existing untreated stormwater discharges to Lake Washington	An existing storm drain that serves the upper Officers quarters area (west of the Phase 2 site) will be retrofitted with a water quality filter system, then daylighted in the southwest corner of the Phase 2 project provide water for a large series of wetlands. This storm drain currently is piped underground, and discharges untreated directly into Lake Washington.
Avoidance or minimization of significant direct loss or fragmentation of mature upland and/or wetland habitat	All stands/thickets of native trees/shrubs are mapped on the plans and every effort was made to avoid these native groves. The rugby field was actually moved further to the east to avoid a stand of sapling madrone; and fields/paths in the southern portion of the project were moved to avoid individual conifers and madrones. Grading for enhancement or creation of WL made a clear effort to avoid the groves as well.
Increase wetland acreage on the site and increase upland/wetland habitat functions	Ten acres of new wetland will be created on the site through dredging (Promontory Ponds) and modest shaping of contours to allow water to flow and coalesce across the entire site. Some existing wet pasture wetlands will not be graded at all, but will have more water directed to them to increase the duration and depth of inundation. Upland areas between the wetlands, with special emphasis on the upland habitat zones east of the lit ball fields will be planted with a range of native coniferous and deciduous trees. The objective is to form a forest to provide upland habitat and also to help, over time, to screen light from the fields.

No historic or cultural resources jeopardized	The closest historic district in the Park is up above the slope to the west, where the officers quarters are located.
Proximity of residences to lit fields	There are no single family residences near the Phase 2 project area; there is a single high density residence in the Park, due west of the Parade Ground fields. The lit fields were moved as far as feasible from this housing. The closest single family residences would be to the south, on the other side of Promontory Point, south of 65th as it extends into the Park.

Figure 3: Proposed Phase 2 Field Configuration with Wetland Impacts



Practicable Alternatives

On-site Alternative

An on-site alternative to the proposed clustering of fields on the west 'edge' of the project area would be to scatter the fields across the greater interior portion of the Park. The sole advantage of this option would be to have less direct wetland loss. From an ecological perspective however, it would result in greater long-term impact to overall habitat function in the Phase 2 area of the Park.

There is very little opportunity for placing individual or paired fields within the Phase 2 area where there are not already other wetlands. Two areas of the Park, the Sports Meadow (north of Phase 2 limits) and the Parade Ground Fields (on the western edge of Phase 2) are already existing grass fields. The Sports Meadow fields were completely overhauled in 2004/05. The Sports Meadow play fields are designed to be flexible grass fields, able to be reconfigured (re-stripped) through the seasons to reflect the greatest need at a particular time. The Parade Ground fields are older and in less optimal condition, however they are still used on a regular basis for scheduled games and informal youth and adult games. The Parade Ground Fields are considered a component of field availability in the JAFPD. The Parade Ground Fields are also right-across the road from a high density low-income housing unit, and care has been taken to try to located fields (especially lit fields) at some distant from these residents.

The other zone in the Phase 2 area that would cause less direct wetland impact is the proposed location of the open-water Promontory Ponds, in the south/central area of Phase 2 (south of wetland M4). This is the site of the historic Mud Lake, and the location in the Park where the peat deposits are found closest to the surface: this is why the ponds were proposed in this location. The practicality of creating sports fields in this location may be limited by the presence of the peat, and the necessity of the underdrain system with in the constructed fields to remain stable and level over time. Geotechnical analysis would have to be conducted to determine if the substrates and old fill in this location could form an appropriate base for the field fill.

From a habitat perspective, excavation of the Promontory Ponds and raising the fields on the west side of the project area provides the necessary topographic gradient to create a 'flow-through' system, allowing water from the fields (and the day-lighted storm-drain) to move passively across the site west to east. If the Promontory pond area is not excavated the whole "system" approach to the movement of water, improvement to water quality, and increasing wetland acreage and functions would not work at the scale proposed.

Dispersing the fields across a greater area to avoid direct wetland impacts would result in other significant habitat impacts. High intensity field use and lighting would be interspersed between the wetlands on the site. It would preclude the establishment of an interior core of

upland/wetland habitat complex with no trails traversing it. The wetlands would be more physically isolated from each other, and upland habitat development would be limited to narrower bands near the wetlands. As noted above, the proposed 'system' of water movement across the site would not work (due to lack of topographic gradient) and opportunities for water quality improvement, wetland creation, and some areas of wetland enhancement would be eliminated. Grading elevations on this site are so tight, that it would not be possible to create a flow pattern from west to east linking the wetlands that remain.

The benefit of creating larger surface areas of fill on which to configure the fields would be eliminated. Each independent field would have to be placed on a filled surface sufficient to allow adequate drainage under the field surface; thus each field would have a substantial footprint of fill. Cumulatively the footprints of the individual fills would surpass the fill necessary for the clustered option of fields, which is approximately 11 acres. Wetland impacts from the scattered fields as illustrated would be, at a minimum, three acres.

Table C presents a summary of the objectives and methods to achieve the on-site Scattered Field option at Magnuson Park. Figure 4 illustrates an option of scattering the fields within the project area of Magnuson Park. Fields have been placed to avoid wetland impacts, and to respond to known site constraints. It should be noted that this illustration does not represent any new parking lots, access roads for emergency vehicles, pathways, or fill slopes for the proposed fields. It represents the footprint only of each of the expected fields.

Table C: Summary of On-site Objectives and Methods to Achieve for the On-site Scattered Option	
On-site Alternative Objectives	Methods to Achieve Objective
Create a suite of five fields to maximize field use relative to required infrastructure needs	Fields would not be clustered; some fields would remain adjacent to existing access roads and large parking lots, other fields would need new access paths that are emergency vehicle passable. Existing road and trail alignments will be maintained where possible for internal movement between fields
No new roads or parking required to be constructed	Two large existing parking lots would be kept and used; may require additional access between 'remote' fields to assure emergency vehicle access.
Use material graded from wetland creation and enhancement work as sub-base fill for elevating the athletic fields to provide for continued passive sources of water on site.	Fields have to be elevated to allow the surface to drain into an engineered collection system. Water from the fields would be directed out and into the wetland habitat to maintain existing wetlands and provide hydrology for created wetlands. Grading of the site may preclude creating a full flow-path across the entire project area, into the Lake. Less excavation and grading for wetlands would result in less soil for sub-grades, and therefore an increase in costs for soils on the site.
Existing arterial access without significantly increasing the traffic level-of-service on residential streets	Sand Point Way is a major arterial for this portion of the City; connecting the University of Washington with Lake City; with direct links to I-5 via N.E. 45th and N.E. 65th.
Permanent removal of existing impervious surfaces	Approximately 12 acres of pavement will be removed from the site including parking lots that are actively used and untreated for water quality; pavement under the soil stockpile area just east of the Commissary (south of WL M4, NW of WL M6). It may be necessary to retain some portions of abandoned taxiways/roads for internal access.
Opportunity for treating existing untreated stormwater discharges to Lake Washington	It would likely not be possible to daylight this storm drain in the same manner, as site grades would not allow the movement of the water from the west to the east across the site. It could be possible that a shorter segment might be daylighted.
Avoidance or minimization of significant direct loss or fragmentation of mature upland and/or wetland habitat	The priority to avoid wetland impacts would likely result in more impacts to stands of native trees and thickets of shrubs that are present in the uplands of the site. Reducing direct impacts to the wetlands would result in a much more significant impact to ecosystem function on the site due to isolation and fragmentation of habitat.
Increase wetland acreage on the site and increase upland/wetland habitat functions	Due to the inability to create appropriate topographic gradients from west to east across the site, the opportunity to create the extent and range of created and enhanced wetlands would be very limited with this option.
No historic or cultural resources jeopardized	The closest historic district in the Park is up above the slope to the west, where the officers quarters are located.
Proximity of residences to lit fields	There are no single family residences near the Phase 2 project area; there is a single high density residence in the Park, due west of the Parade Ground fields. If the Parade Grounds were used for the construction of new fields, then there would be direct effects on this high density low income housing unit located across the street.

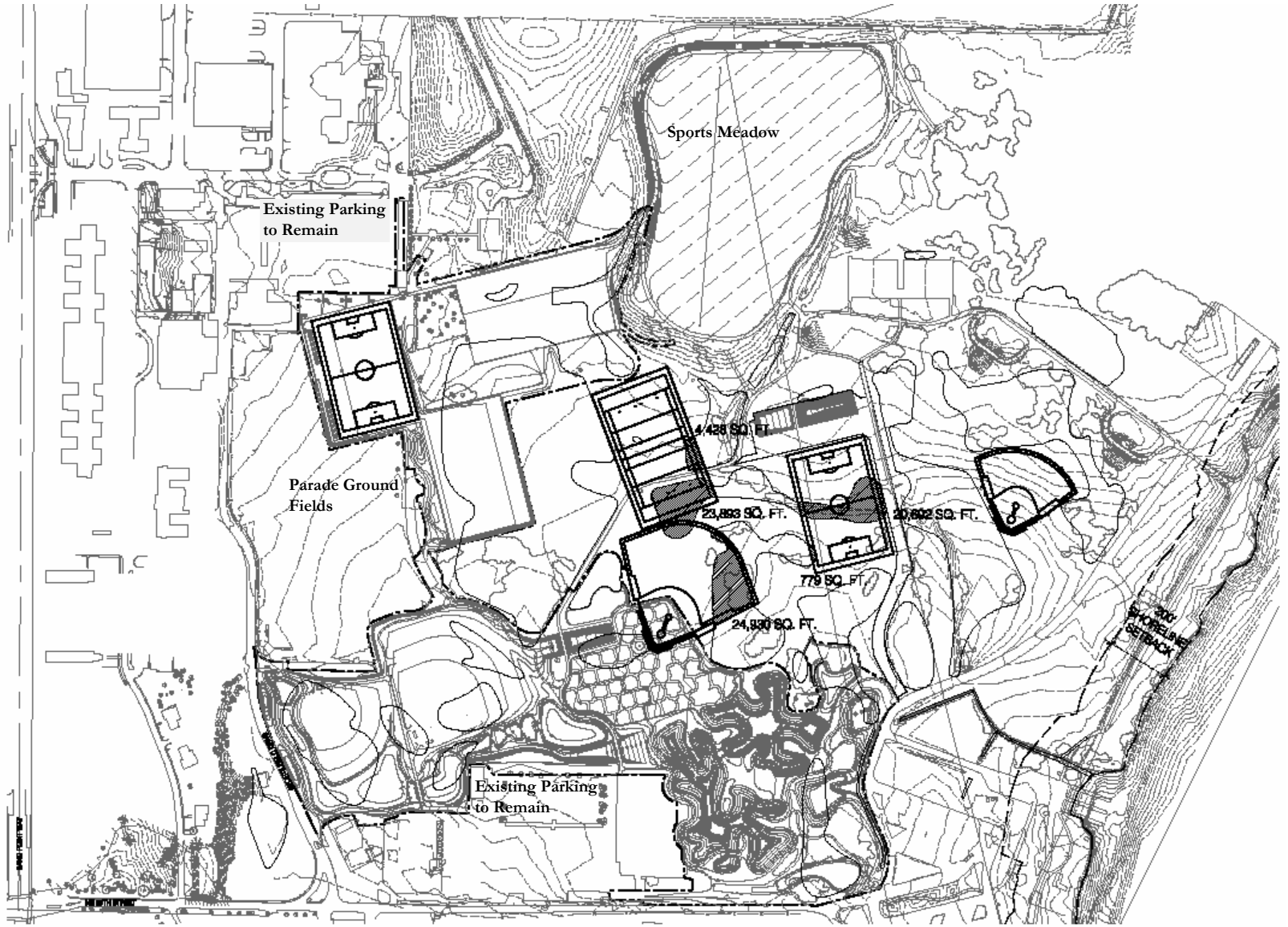


Figure 4: Proposed Phase 2 Field Configuration with Wetland Impacts

Spreading the fields across the site would also change the traffic or parking implications, including some additional trails and emergency vehicle access from roads and parking lots to the relocated fields. These paths would have to be sufficiently large and stable in order to handle emergency vehicle access, resulting in narrow bands of fill through the site. In addition, removal of impervious surfaces would be greatly reduced with remotely relocated fields, requiring more of the existing roads and parking areas to remain to provide access.

Off-site Alternatives

The City has clearly established the need for additional athletic fields based on current and projected uses as described above. A significant effort to fill that need is outlined in the JAFDP. The JAFDP outlines how Parks has formed a collaborative team with the Seattle School District to upgrade existing school district fields to attempt to meet the capacity needs for sports fields, however the demand still exists. The collaborative effort with Seattle School District is the most cost effective approach to provide appropriate new fields at individual sites across the City, and the JAFPD identifies the most appropriate locations to upgrade School District Fields. The JAFPD also identified additional fields to be provided at Magnuson to attempt to provide greater capacity. If the fields are not placed at Magnuson, then either other locations would have to be considered, or the Department of Parks and Recreation would continue to not meet the mandate for more field capacity.

For this Alternative Analysis, three other potential locations owned by Seattle Parks were reviewed to determine if they would provide suitable locations for the same number of fields as the Magnuson alternative. The three other sites meet the 404(b)1 Guidelines as Practical Alternatives because the fields could physically be placed in these locations. However, Seattle Parks has conducted decades of planning, site assessments, public involvement and decision-making processes, and capitol improvements prioritizations to identify the feasible uses of Warren G. Magnuson Park. The three sites utilized for this Alternative Analysis clearly have not gone through such an analysis and are not currently being considered by Seattle Parks and Recreation for the proposed project in lieu of the Magnuson site.

The following criteria were used to evaluate each site. A comparative matrix of the sites and the criteria is provided in Table D. It is assumed that for the five fields a minimum of 11-13 acres of fill would be required for the footprint of the fields:

- Create a suite of five fields in one location to maximize field use opportunity relative to required infrastructure needs;
- No new roads or parking lots required to be constructed to serve expected users
- Identify a site which has existing arterial access for drivers to get to the park without significantly increasing the traffic level-of-service on residential streets;
- Permanent removal of existing impervious surfaces
- Opportunity for providing treatment of existing untreated stormwater which is discharged to a fish-bearing water.

- A site where significant direct loss or fragmentation of mature upland and/or wetland habitat could be avoided or minimized;
- Opportunity for increasing the acreage of wetland on the site and providing a significant gain in functions of upland and wetland habitats
- A site where no historic or cultural resources would be put into jeopardy;
- A site where residential uses were either minimal or non-existent in close proximity (e.g. across the street or immediately adjacent) from the fields to be lit.

Three sites within the Seattle Park system were identified as potentially able to accommodate the field configuration as proposed. One of the sites is north of the Ship Canal where studies have shown the greatest demand for fields is within the City. There are no other likely areas in the northeast quadrant of the City which meet the basic criteria of size and less mature habitat impacts than Magnuson. Each site is discussed individually below.

Lincoln Park

Lincoln Park, 135 acres, is located at 8011 Fauntleroy Way South in West Seattle. The existing conditions in the Park include five picnic shelters, tennis courts, a saltwater swimming pool, wading pool, play equipment and three unlit ball fields. Habitats within the Park include a mature upland forest, madrone forest overlooking the beach which is protected as a Marine Preserve, (2003 City ordinance), see Figure 5. Based on existing topography, the portion of the Park that could accommodate five additional fields without jeopardizing the existing grass fields in the Park is shown in Figure 6. The fields would be grouped in the forested zone, above the saltwater beach.

The area of Lincoln that would be most appropriate for five fields is characterized by a mature mixed deciduous/evergreen forest. The mature forest is adjacent to the saltwater beach within the Park which has been designated by Seattle Park and the Seattle Aquarium as a Marine Reserve. The upland forest within the Park represents a mature mixed deciduous/evergreen forest with a closed canopy of native trees, including significant Pacific Madrone. In addition to habitat, the forest is a visual barrier and audio barrier between the habitats of the near-shore and Fauntleroy Street, as well as other human uses within the upper portions of the Park.

Lincoln Park contains moderate to steep slopes dropping towards Puget Sound in the vicinity of the field placement. The site is largely designated by the City with extensive Environmentally Sensitive Areas: slopes in excess of 40%, potential slide areas, shoreline habitat buffer, and wildlife habitat. Slopes would require extensive grading and engineering to produce the large level areas necessary for field construction. Placement of the fields would require, at a minimum, the clearing and grading of approximately 11-13 acres of the Park.

There is not sufficient parking available currently in the Park to accommodate the anticipated additional level of use for five more fields. Additional parking would have to be constructed and stormwater from the parking would have to be treated for water quality prior to discharging to Puget Sound. Fauntleroy Street is an arterial street and could likely accommodate the traffic (no traffic studies have been completed for this analysis); however, congestion exists in current conditions when back-ups for the Vashon ferry loading use the road-shoulder for a holding zone for weekend visitors to the island. There exists the potential for significant traffic impacts to the neighborhood and ferry travelers if additional parking was not created within the park.

Some of the proposed fields within Lincoln Park would be significantly closer to residences, just across Fauntleroy Street. These single family residences would be far closer to the proposed lit fields than the single building of low-income housing located within in Magnuson Park., and the multi-family housing located to the west across Sand Point Way. Given that the houses facing Fauntleroy would be roughly at the same elevation as the fields themselves, the field lighting would be in a more direct-line-of-sight effect, rather than an 'overview' that would affect the predominance of single family residences on View Ridge, overlooking Magnuson.

Figure 5: Five Fields in Lincoln Park

Figure 6: Existing Conditions, Lincoln Park

Discovery Park

Discovery Park, 534 acres, is located on 3801 W Government Way in Seattle's Magnolia neighborhood. The Park is designated primarily for passive open space and habitats; there are walking and nature trails, a Nature Day Camp, the Daybreak Star Cultural Center, picnic tables and tennis courts. Figure 7 illustrates existing conditions at Discovery Park; Figure 8 indicates the Park with the five fields superimposed in the most appropriate location.

Discovery Park, in existing conditions, is comprised of a variety of habitats including mature forest, open meadow, some wetland, marine shoreline and steep bluffs. A portion of the

open upland meadow habitat within the Park is part of historic Fort Lawton area, and thus cannot be converted to athletic field use.

The area of Discovery Park that would accommodate the five fields is located on the western edge of the upland meadows, in order to avoid the historic Fort Lawton zone in the Park. The fields could be placed into an area that is predominantly meadow habitat, however it would slightly impact the forests to the north. The fields would be adjacent to and overlap some designated environmentally sensitive areas requiring SEPA review, potentially impacting slopes in excess of 40%, potential slide areas, and wildlife habitat. See Figure 7 for an existing aerial. This is the largest contiguous zone in the Park that would require the least amount of grading and loss of mature habitats, however significant grading would still be required and some upland forest would be lost. The upland meadows habitats in the Park have been under-going a native restoration program for nearly a decade that was initiated by Parks and local citizens. Loss of upland meadow and young shrubs would mean the loss of meadow-dependent passerines and prey species, similar to the expected losses from the dry and wet meadows at Magnuson. .

There is some remaining road network and parking areas left within the interior of the Park; no assessment of the increased load capacity of the road system was attempted. However, it should be assumed that the roads would have to be brought up to current City standards for the expected load capacity, significant additional parking and access paths /roadways would be required, and storm water facilities would have to be constructed or updated to collect and pre-treat runoff prior to discharging it to Puget Sound. Discovery Park is served by some arterial streets to the main access points for the Park, though traffic "spillover" is likely and such traffic issues are already closely monitored to reduce impacts on the adjacent residential neighborhoods.

Placement of the fields in this location would place them at quite a distance from the nearest residences. The lighting would still be in close proximity of upland habitats, including upland meadow and mature forest zones.

Figure 7: Discovery Park, 2007 aerial

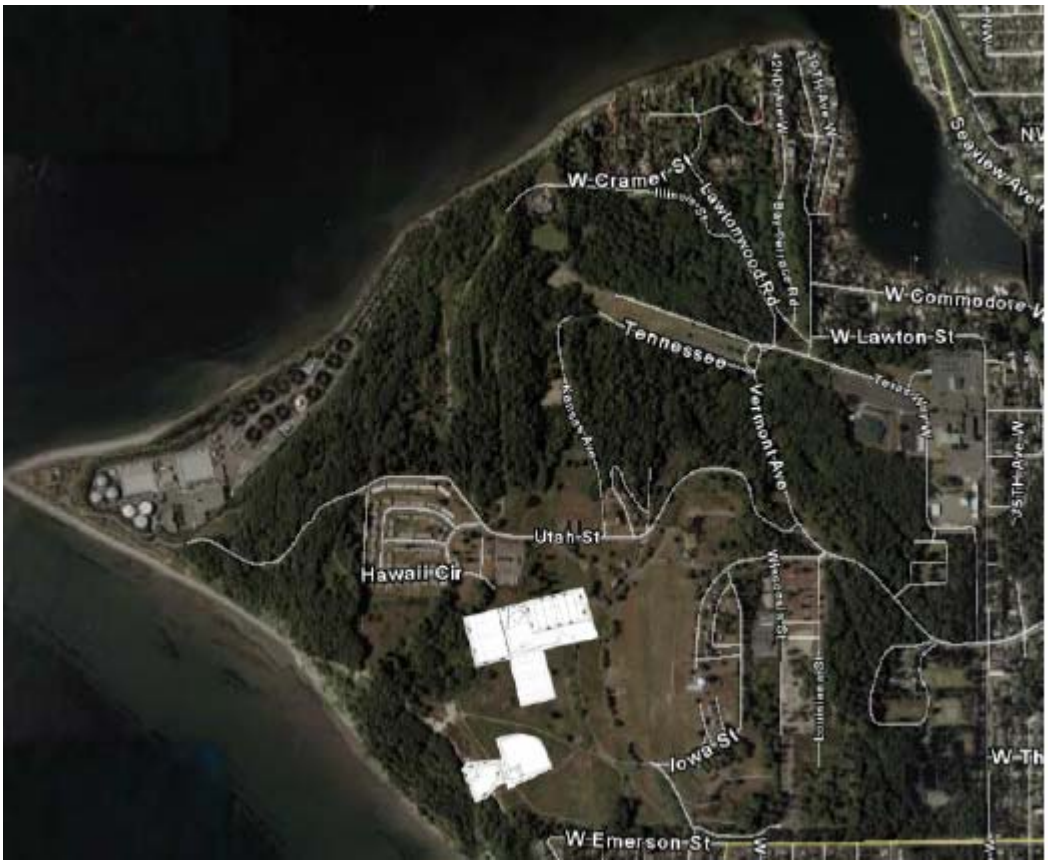


Figure 8: Discovery Park, 2007 aerial

Jefferson Park/Beacon Reservoir

Beacon Reservoir is 43 acres within Jefferson Park located at 4165 16th Ave S in south central Seattle. See Figure 9. The Reservoir site has just completed undergoing a Master Planning process, however the foot-print of the fields was overlaid on the site to demonstrate applicability, see Figure 10. The current Reservoir site is being designed by Parks as a cover for domestic water supply sources in the reservoir, therefore the capping of the existing Reservoir by fields could be a feasible alternative however the engineering implications are very significant. The berms/sides of the existing reservoir structures have been classified as an earthen dam by the COE, with strict limits places on elements and activates that can impact it. The fields would be adjacent to and overlap some designated environmentally sensitive areas requiring SEPA review, potentially impacting slopes in excess of 40%, potential and known slide areas. Existing slopes would require extensive grading and engineering to produce the large level areas for field construction of the five fields.

The current proposed Master Plan for Jefferson Park/Beacon Reservoir includes four fields; two soccer fields that overlap with a track and a baseball field (different field configurations would be used based on season and need). However, for this analysis we have overlain the Reservoir portion of the park with the fields from Magnuson to illustrate that the suite of fields proposed at Magnuson could be placed in this location.
From a habitat standpoint, Beacon Reservoir poses the least damage or potential threat to any habitats, as none exist in current conditions (save 'typical' urban lawn/open treed landscapes). Major arterials serve the location, and we have assumed that no cultural resources would be at risk. Lighting would be increased over existing conditions; and the site tends to be elevated relative to the adjacent residences, and the larger city, therefore lighting effects may have a greater effect than lights at eye level or below the viewer, both for residents and more distant areas of the city

Figure 9: Jefferson Park/Beacon Reservoir

Figure 10: Jefferson Park/Beacon Reservoir with Five Fields

The athletic field proposal for Sand Point Magnuson Park is a direct result of a system wide assessment and planning process. The 1997 JAFDP, updated in 2000, looks at all fields, and assessed demand and needs City-wide. The Sand Point Magnuson Park proposal was developed in the context of the JAFDP and the comprehensive planning for City athletic facilities. Twenty-eight field sites, including Sand Point Magnuson Park, were identified in the Appendix A and B of the JAFDP as either fully or partially funded; another twenty-three were identified for future funding.

One of the objectives of the proposal is to redevelop Magnuson Park into a multi-purpose regional park. The City Council approved the Concept Design in Resolution 30063 (11/99) which indicates the preferred development scenario for the Park. That is what the Department took as guidance for the objectives of the proposal. Dispersing the fields to other neighborhoods and having fewer fields at Magnuson Park would be a clear departure from the Council approved Concept Design.

If the proposed fields were spread to other Parks property the impacts would be dispersed closer to residential neighborhoods and would likely displace existing uses. Park properties such as Laurelhurst, Dahl, View Ridge, Meadowbrook, North Acres, Maple Leaf, Gilman, Gas Works, Mountlake and most others each have residents that live close by, have limited parking, are on neighborhood streets, or would require displacing other park activities without any replacement opportunities. The proposed fields at Sand Point Magnuson Park are farther away from residential properties than almost any other park property and so would have less light and noise impacts.

The alternative of dispersing the five fields across the city in a variety of Parks was not assessed for this Alternative Analysis as the JAFPD already identifies the spread of appropriate parks and School District properties for field use and those feasible projects are in consideration. The physical impacts of dispersing the fields rather than developing a complex at Sand Point Magnuson Park could include spreading the impact of light fields across a greater area of the City, with high likelihood that light fields would be in closer proximity to residences. Noise impacts would also likely be closer to residences than the relatively removed field configuration at Magnuson. And traffic would be dispersed across a greater area of the City, but in far less concentrated patterns if fields were spread further afield.

Table D: Site Comparison Objectives					
	Magnuson concentrated	Magnuson scattered	Lincoln Park	Discovery Park	Jackson Reservoir
Create a suite of five fields (in addition to existing and planned fields) to maximize field use relative to required infrastructure needs	Yes	Dispersing the fields would possibly trigger more parking/interior roads and paths	Yes	Yes	Yes
Would new roads or parking required to be constructed	No	See above	New off-street parking	Retro-fitting interior roadways; new parking	New off-street parking
Existing arterial access	Yes	Yes	Yes, though capacity may be an issue	Yes	Yes
Significantly increasing the traffic level-of-service on residential streets	No	No	Yes	Yes	Yes
Permanent removal of existing impervious surfaces	Nearly 12 acres removed	Significantly less removed	No	No	No
Opportunity for treating existing untreated stormwater discharges to a Water of the State	Daylighting of existing untreated stormwater discharge flowing into Lake WA	Possibly, though scattering the fields will change the future topo and daylighting may not be feasible	No	No	No
Avoidance or minimization of significant direct loss or fragmentation of mature upland and/or wetland habitat	6 acres of wetland impacts; none of the habitats on the site are more than 35 years old	Minimization of direct wetland impacts; fragmentation of all remaining habitat.	Loss of mature upland forest greater than 75 years old	Loss of mature forest habitat	No, urban habitat
Increase wetland acreage on the site and increase upland/wetland habitat functions	Creation of 10 acres of new wetland; enhancement of 4 acres	Less opportunity for generating water sources to create or enhance WL	No	No	No
No historic or cultural resources jeopardized	Yes	Yes	Yes	Fort Lawton in proximity	Yes
Proximity of residences to lit fields	One high density building (495 feet distant)	One high density building (495 feet distant)	Single family residences across the street	No	Single family residences nearby, and park is elevated

Phase 2 of the Master Plan is designed to be a "stand alone" action within the park. Phase 2 is currently funded including significant funds from the Seattle Pro-Parks Levy with some additional funding sources. At this point in time, no future public funding for subsequent phases of the Park Master Plan have been identified. Therefore, the actions and compensation proposed within this report are considered as one separate and complete project because there is no public funding identified for any future phases of the Master Plan.

A complete SEPA analysis and review process was undertaken for the Master Plan for the Park. The SEPA determination was appealed, as was the issue of not conducting an Alternatives Analysis for the Park. It was determined by the City Hearings Examiner and in an appeal to Superior Court, that Seattle Parks and Recreation had conducted a thorough analysis of likely impacts of the project, and that no Alternative Analysis for placement of a suite of athletic fields in other Park locations in the City was warranted. Seattle Parks and Recreation determined through a lengthy public process that use of the surplussed Naval Air Station for multiple uses was the publics' priority. The public process identified athletic field use at Magnuson Park as one of its top priorities; Parks proceeded to then design such use with a minimum of adverse impacts to wetland and existing upland habitats.

Summary

Alternatives

The on-site Phase 2 project proposed at Magnuson Park will result in impacts to aquatic sites, as will the on-site Alternative of scattering fields across the site. None of the three off-site alternatives will result in direct impacts to aquatic sites. Although the proposed Phase 2 project will result in impacts to aquatic systems it remains the least environmentally damaging alternative for several key reasons:

1. It will result in the removal of nearly 12 acres of impervious surfaces from the site, including some which are pollution generating and that receive no treatment prior to discharging to Lake Washington
2. Clustering of the fields on the western edge of the project will retain the remaining proposed wetland/upland habitat complex in a larger contiguous area in the Park. By avoiding habitat fragmentation and creating a large contiguous area of habitat with no trails or access, habitat function will be greatly improved over existing conditions on the site.
3. Runoff from an existing untreated storm drain will be daylighted, pre-treated, and then run through a long sequence of wetland habitats prior to being discharged to Lake Washington. In addition, stormwater from some currently untreated pollution generating surfaces will be collected and pre-treated prior to be included in the wetland systems. All of these water drain directly to Lake Washington in existing and proposed conditions.

4. No additional parking or access roads will be required to be built to support the fields; and the proposed fields are located over 450 feet from an existing single high density unit of low income housing;
5. No mature habitats have to be altered or compromised to construct the project. The wetlands on the project site are approximately 30 years old, structurally immature, and lacking physical complexity and species richness in existing conditions. The uplands on the project site are also approximately 30 years old and are comprised of upland meadow and thickets of native/non-native trees and shrubs.

Two of the off-site Alternatives, (Lincoln Park and Discovery Park) have upland locations that could accommodate the fields. However, both Parks would require new parking lots and access roads to accommodate the expected users of a suite of five new fields. Both parks drain directly to Puget Sound, therefore all stormwater generated from the parking lots and/or roads would require pre-treatment prior to discharge to the Sound. Both Parks have other environmentally critical areas (e.g. steep slopes, Marine Reserves) present on site that could possibly be impacted by field placements. Because neither of these parks generate wetland impacts there would no regulatory incentive for the City of Seattle to conduct the extensive habitat restoration and enhancement being proposed at Magnuson Park, therefore, the overall habitat impacts could be considered greater, as there would be no required compensation for upland habitat loss. These two parks also do not provide the opportunity for improving existing degraded water conditions flowing into Lake Washington (or Puget Sound), therefore, the 'gain' of environmental benefit is off-set.

The Jefferson Park/Beacon reservoir site would cause the least environmental impacts of any of the off-site Alternatives. Being a more urban setting with less habitat present, it poses less risk to upland habitat loss and poses no risk to wetland habitat. Concurrently, there is no environmental benefits associated with the project either: no water quality improvement, an increase in pollution generating impervious surfaces (e.g., parking lots), and no increase in habitat functions over time.

It is our conclusion that the proposed Phase 2 project at Magnuson Park does represent the Alternative with the greatest environmental benefit in spite of the proposed 6 acres of wetland impact. In addition to the 10 new acres of wetland creation and 4 additional acres of improved wetland function, it is proposed to address existing stormwater issues, remove substantial acreage of existing impervious surface, and overall improve the upland and wetland habitats within the park through long-term restoration and management actions.

References

Blue Ribbon Committee Report. 1999, *Report to the Mayor and City Council: Sand Point Blue Ribbon Committee.*

COE. 2003. Alternative Analysis Guidance. U.S. Army Corps of Engineers (COE), Seattle District, Seattle, Washington.

Seattle Parks and the Seattle Planning Commission. 1965. *Outdoor Recreation and Open Space Plan.*. City of Seattle, Seattle, Washington.

Seattle Parks and Recreation. 2001. Sand Point Magnuson Park, Drainage, Wetland/Habitat Complex and Sports Fields/Courts Project EIS. City of Seattle Parks and Recreation, Seattle, Washington.

Seattle Parks and Recreation. 2002. 2002 Joint Athletic Facilities Development Program: A Program of the Seattle Parks and Recreation and Seattle Public Schools.

Seattle Parks and Recreation. 2004. Response to City Council Questions: Sand Point Magnuson Park. February 26, 2004

Sheldon & Associates. 2001. Sand Point Magnuson Park Vegetation Management Plan. Sheldon & Associates, Inc., Seattle, Washington.

Sheldon & Associates. 2003. Letter to U.S. Army Corps of Engineers regarding Sand Point Magnuson Park Phase 1 wetland jurisdictional determination. Sheldon & Associates, Inc., Seattle, Washington.

Sheldon & Associates. 2005. Wetland Delineation Report: Magnuson Park. Sheldon & Associates, Inc., Seattle, Washington.

Sheldon & Associates. 2006. Wetland Compensation Plan for Magnuson Park Phase 2 Development. COE #200600052. Sheldon & Associates, Inc., Seattle, Washington

Sheldon & Associates. 2006. Draft Biological Evaluation for Warren G. Magnuson Park: Drainage, Wetland/Habitat Complex And Sports Fields/Courts Project, Phase 2.

Appendix A—City of Seattle City Council Field Demand Briefing

SEATTLE PARKS AND RECREATION

February 26, 2004

Councilmember David Della
Seattle City Council
Municipal Building
600 Fourth Avenue
Seattle, Washington 98104

Dear Councilmember Della:

We are pleased to submit to you our responses to the questions we received from Council members following our February 4th presentation to the Parks, Neighborhoods and Education Committee on the wetland and athletic field components of the Sand Point Magnuson Park Master Plan. We look forward to discussing these questions and other aspects of the Sand Point Magnuson Park Master Plan when we meet with your Committee on March 3rd.

Sincerely,

Ken Bounds, Superintendent

Enc.

RESPONSE TO CITY COUNCIL QUESTIONS
SAND POINT MAGNUSON PARK
February 26, 2004

1. a. Does the unmet demand for sports fields in the City justify 11 lit, synthetic fields at Sand Point Magnuson?

Yes, we are confident that the City's unmet demand for athletic fields justifies the eleven lit, synthetic surfaced fields at Sand Point Magnuson. This conclusion is based on the demand survey conducted in late 2000, an updated north end survey conducted in the summer of 2003, and the conclusion of the City Auditor in the January 2002 audit of athletic field scheduling. Also, the eleven fields are replacing two areas of existing grass fields at Sand Point Magnuson Park. These fields include 4 baseball diamonds and 4 soccer fields which will be replaced with the new, improved fields.

To aid in planning the 2000 update of the Joint Athletic Facilities Development Program (JAFDP), the Department conducted a survey of sports field users in late 2000. Following the direction given to the Department by the City Council not to base our planning on total demand, we calculated what we termed reasonable demand. Based on this analysis, we were accommodating approximately fifty percent of reasonable demand in 2000. A more recent survey was conducted by the Seattle Youth Soccer Association with Friends of Athletic Fields of only north end sports field users, and specifically only those organizations that have played at Sand Point Magnuson Park. This survey reached the same conclusion as the earlier one: we are meeting approximately fifty percent of current demand. (Details of these surveys are provided with the response to question 1.g.). Also, a demographic analysis of our users city-wide shows that sixty percent live in the north end of the City or play with leagues north of the ship canal, with most of these in the northeast quadrant.

In January 2002, the City auditor issued a report on the Department's athletic field scheduling. The Auditor concluded: "Parks athletic field use is at or near capacity during peak times, which will restrict future field scheduling expansion." In projecting future demand, the Auditor cited the following demographic facts:

- Increase of fourteen percent in events scheduled since 1995;
- Consistent interest in traditional sports such as baseball, softball, and track and field;
- Increased popularity of soccer, rugby, fast-pitch softball and ultimate Frisbee;
- Increased interest in new sports for youth and adults;
- Increased interest in year-round play for youth and adults; and
- Seattle School District middle school sports reintroduced.

The last fact listed, the reintroduction of sports into middle schools ties into another fact that has increased demand: the development of new, high quality high school fields. Both

of these events have increased the number of youth playing school sports. As these youth mature, they are continuing to play the sports they played in school, thus increasing the population of adult athletes and increasing field demand. We have seen this occur with soccer, and expect the trend to continue with many of the newly introduced sports in schools, such as lacrosse and ultimate Frisbee. Please see Graph 1, included with our response to question 2.b., regarding the growth in lacrosse and ultimate Frisbee.

1. b. How many annual hours of play can City fields provide now if fully scheduled?
1. c. Are they being scheduled to their full capacity and if not, why not?

These questions are most accurately addressed by evaluating capacity during peak times. This is the approach taken by the City Auditor in the 2002 report on athletic field scheduling and provides a true picture of capacity. For example, it would not be an informative or accurate picture to include in the analysis baseball field capacity in the dead of winter. The sport, the season, the type of field, hours of the day and day of the week all influence how we are able to schedule fields and meet demand.

Our analysis has led us to the same conclusion as that reached by the City Auditor: during peak times our fields are at or near capacity. This is especially the situation with synthetic, lit fields. Most of our available capacity is on weekends. There are two factors contributing to this. First, responding to direction from the City Council we leave time unscheduled on weekends to allow field neighbors casual use of the fields during weekends when families generally have time together. Second, consistent with weekends generally being family time, there is less field demand from adult teams on the weekends. We also are starting to show more availability of sand fields as a result of a transition in demand from the sand fields to the newer and more desirable synthetic fields. As availability increases on the sand fields, we will evaluate our scheduling policies and may make a change to allow block scheduling for adult practices which we have not previously scheduled.

1. d. How much will sports field capacity increase with the provision of new lights and/or synthetic surfaces at fields other than the Magnuson Park ones per the Joint Athletic Facilities Development Plan (JAFDP) that the Parks Department proposes?

Table 1 shows the status of sports fields that are included in the JAFDP and are proposed to be upgraded with new lights and/or synthetic turf. We have not included projects that are only replacing existing lights, as there will not be any expected increase in capacity from these projects, and we have not included projects that have come on line since the JAFDP, as the question refers to projects that the Department proposes. Since the 2000 update of the JAFDP, synthetic, lit fields have been added at Nathan Hale, Rainier Beach, Sealth, Summit and Genessee, and non-lit fields at Ingraham.

Table 1: JAFDP Projects (Table revised 3/1/04)
Hours of Use and Capacity

Field	Proposed Project	Status	2003 Hours Scheduled	Estimated Capacity after Complete	*Net Added Capacity - Funded Projects*
Bobby Morris	Upgrade lighting, add synthetic turf	Funded, complete 2005	1,005	3,000	1,995
Brighton	Upgrade lighting, add synthetic turf	No funding	1,100	3,200	
Delridge Playfield	Upgrade lighting, add synthetic turf	No funding	1.125	3,000	
Garfield High School	Add synthetic turf	School District Funding undetermined	0	1,300	
Genessee, Lower	Add synthetic turf	No funding	840	3,000	
Ingraham High School	Synthetic turf has been added, lights pending	Lighting pending permit process	4,168	10,600	6,432
Hiawatha	Upgrade lighting, add synthetic turf	No funding	1,941	3,000	
Loyal Heights	Upgrade lighting, add synthetic turf	Funded	1,331	4,800	3,469
Magnolia Elementary	Add synthetic turf	Funded	0	1,500	1,500
Rainier Playfield	Upgrade lighting, add synthetic turf	No funding	2,075	3,000	

Roosevelt High School	Add synthetic turf	School District Funding undetermined	1,914	1,860	
Washington Park	Upgrade lighting, add synthetic turf	No funding	2,429		
Net added capacity of funded projects					***13,396***

1. e. How much more will the fields at Sand Point Magnuson Park add?

Theoretically, the new fields at Sand Point Magnuson Park will add 28,652 total hours of capacity. However, while these hours are technically available, it is not an accurate reflection of anticipated use. As discussed previously, aggregate field capacity numbers include off peak hours when we do not experience demand (like the baseball field in winter). We estimate actual field use at Sand Point Magnuson, based on comparable fields and their actual 2003 use, will be approximately 15,000 hours. In 2000, the Sand Point Magnuson fields were used for a total of 3,712 hours; we would therefore expect the net increase from the new fields to be 11,288. (We used the year 2000 as our base of use for the Sand Point Magnuson fields because the deterioration of field quality over the last few years has considerably reduced use.)

In addition to the quantity of fields Sand Point will add to our system, there is also the issue of quality. We are currently unable to provide a reasonable quality of field to many of our users. The fields at Sand Point Magnuson Park are in particularly poor condition. Two of the baseball and two of the soccer fields are original navy fields with no irrigation or drainage systems and were not maintained by the Navy for public use.

1. f. How does all this new supply compare to unmet demand?

The 2000 JAFDP survey calculation of reasonable demand and the 2003 SYSA survey of north end Sand Point Magnuson Park users both show unmet demand to be approximately fifty percent of the time we are able to schedule. When the total capacity added by the Sand Point Magnuson Park fields is added to the total capacity added by the proposed and funded JAFDP projects we have the potential to gain 24,684 additional schedulable hours (13,396 from the funded JAFDP projects plus 11,288 from the Sand Point Magnuson fields). System wide during 2003 we scheduled 139,000 hours of athletic field use. The additional hours provided by Sand Point and the funded projects do not come close to meeting the fifty percent unmet demand. Also, as has been explained in our answers to the previous

questions, our demand is during peak seasons for sports and during peak hours of the week, and our unmet demand is correspondingly during these times. Peak hour time available for these fields will be less than the total hours.

1. g. How have you estimated unmet demand?

We have estimated unmet demand based on the surveys of soccer, baseball and softball sports field users conducted by the Department in 2000 and the Seattle Youth Soccer Association in 2003. As noted previously, the Department surveyed field users to aid in preparation of the Joint Athletic Facilities Development Program (JAFDP). We questioned field users about their demand at the time and projections for growth. Based upon direction from the City Council, instead of basing the JAFDP planning on the absolute demand demonstrated in the survey, we reduced that demand to what we described as reasonable. Based on the survey results, in 2000 we were meeting approximately fifty percent of reasonable demand for soccer, baseball and softball. Other sports were not reported as our survey response rate was not large enough to be representative.

Table 2
2000 JAFDP Survey Results

	Total Hours to Meet Reasonable Demand	2000 Scheduled Hours
Adults		
Soccer	9,350	7,544
Baseball	1,680	23
Softball	1,871	650
Youth		
Soccer	10,920	2,839
Baseball	6,595	4,927
Softball	2,860	1,576
TOTAL	***33,276***	***17,559***

As mentioned in previous answers, in the summer of 2003 an additional survey of field users was jointly conducted by the Seattle Youth Soccer Association and Friends of Athletic Fields. This survey only questioned sports organizations that are based in the northeast quadrant of the City and currently use fields at Sand Point Magnuson Park. The results of this recent survey closely correspond to the earlier one: we are meeting 42% of the current demand from north end sports field users, with 58% of the demand unmet.

1. h. How confident are you in your estimate (of unmet demand)?

We are confident that the fifty percent estimate of unmet demand identified in the JAFDP survey is close to or undercounts actual demand. An undercount likely results from the recent rapid growth of new and newly introduced sports such as ultimate Frisbee, lacrosse and cricket which were not assessed in the JAFDP survey. Also, we may be undercounting demand for adult soccer. Respondents to both surveys said that adult soccer growth is constrained by the lack of availability of fields during peak times, but we have not quantified this aspect of unmet demand in our analysis.

2.a On what basis did Seattle Parks decide what types of sports fields to provide at Sand Point Magnuson Park?

The planning for the athletic field portion of the Sand Point Magnuson Park Master Plan has followed the direction provided by the City Council which defined the wetland and athletic field areas. Twenty-two acres were allocated in the Council endorsed plan for the dedicated athletic fields. Staying within this context, we have worked with user groups to determine the layout and the numbers and types of fields. The evolution of field types is shown below in Table 3.

The proposal allows for four full size soccer fields, one youth size soccer field, one rugby field, two full size baseball diamonds, and three small little league diamonds. This combination of fields has been generally consistent for many years. With a few modifications, the City Council endorsed this collection of fields in 1997, 1999 and 2001. In addition, the "Vision Plan", created by the citizen led Sand Point Community Liaison Committee in December 1994, updated in 1997, and endorsed by the Sand Point Blue Ribbon Committee in 1998, included a similar number and types of fields. Through this process the Department has worked closely with the Seattle Sports Advisory Council, Friends of Athletic Fields, DiscNW (ultimate Frisbee), Seattle Youth Soccer Association, North Seattle Little League, representatives of rugby, and the general community to determine the appropriate mix of fields.

Representatives of the various athletic field user groups have held ongoing discussions and collaboratively determined, with the Department, that the collection of fields as proposed will provide a dynamic, mixed use facility that will address the most pressing needs for fields. The removal of the track between 1999 and 2001, the removal of one rugby field, and the development of a youth sized soccer field were done in consultation with the user groups. These were removed from the plan as a concession to the balance desired between athletic fields and wetland habitat development.

Table 3
Evolution of Field Types

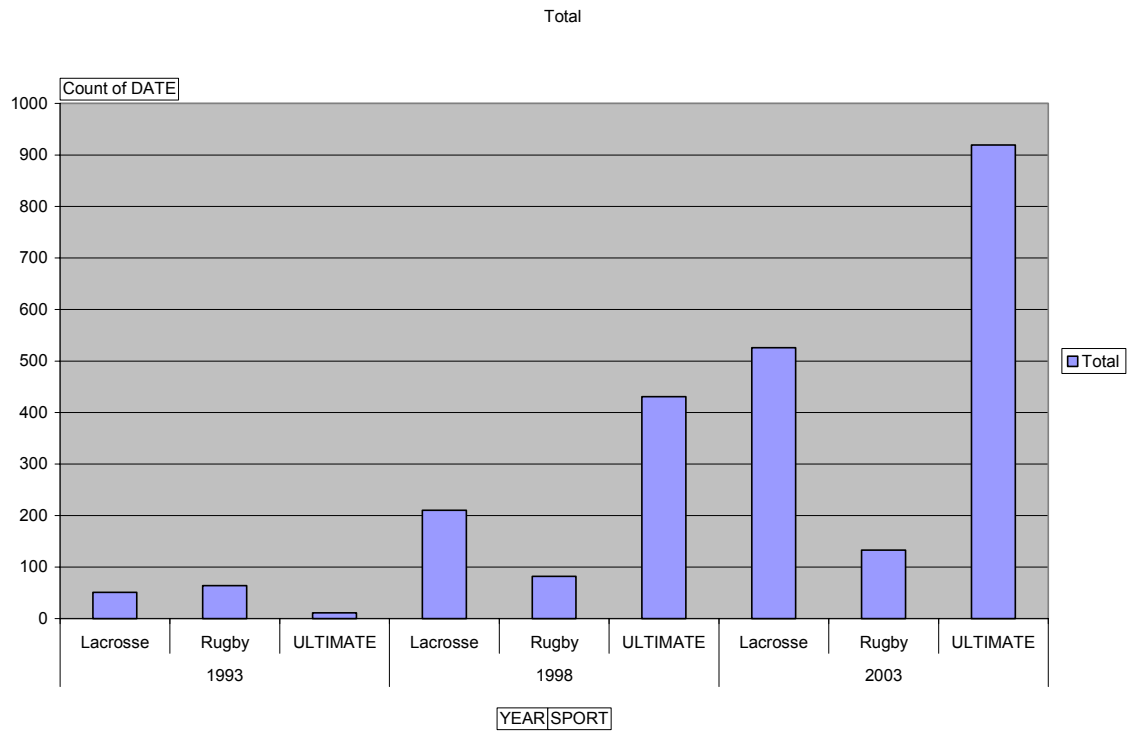
	Proposal	Resolution 30293 (4/01)	Resolution 30063 (11/99)*	Vision Plan (94,97)	JAFDP Resolution 29681 (12/97)
Full size soccer fields	4	4	4	5	5
Youth soccer field	1	1			
Baseball	2	2	2	8	2
Little league/softball	3	3	3		5
Track			1		
Rugby	1	1			2
TOTAL	***11***	***11***	***10+***	***13***	***14***

*Council requested the department to explore the possibility of additional fields but did specify field types.

2. b. Is the mix consistent for the currently existing and future projection of demand by sport?

Yes, we expect significant growth in sports using rectangular fields, creating demand far beyond the ability of the additional five soccer fields at Sand Point Magnuson Park to accommodate. New sports, and sports that previously have not been popular in Seattle, are rapidly growing and being introduced formally in schools. These sports include ultimate Frisbee, lacrosse, cricket and rugby. As school programs grow in these sports, the youth who have played the sports in school will mature and want to continue to play on adult recreational teams. This clearly has been the pattern with soccer in our region, and we are seeing it continue with the new or newly introduced sports, as shown in Graph 1, all of which use rectangular fields.

Graph 1
Hours Scheduled for Lacrosse, Rugby and Ultimate Frisbee



We have also seen resurgence in demand for baseball and softball fields. School softball programs have grown significantly over the past several years, leading to more demand for youth field times and correspondingly an increase in adult teams and demand. Also, as the School District has improved their facilities, more youth are participating in baseball and softball and will follow the pattern of continuing to play as adults.

3. a. What are the impacts of having so many lit fields visible from so many residences?

The impacts of the proposed lighted fields are detailed at length in the FEIS (Chapter 3.9) and Addendum (Chapter 2.9). These chapters provide detailed descriptions of all possible lighting impacts and summarize the impacts that are specific to the proposal.

Those residences within park boundaries (the transitional housing) and immediately adjacent to the south (Radford Court complex) will experience greater impacts. Some onsite residences will receive an increase in spill light from current conditions, but these spill light levels will be in accordance with Department lighting performance standards. This level of

spill light is less than some of the ambient light levels already existing in the onsite housing, and is the same or less than existing conditions at several other lighted fields in the city. Onsite housing will also be subject to greater glare due to their proximity to the fields. However, as is detailed in our response to question 3. c., efforts have been made to minimize glare through the selection of lighting technologies. In addition, the effect of glare has been mitigated through providing increased distance and vegetation between lighted field areas and onsite housing.

These fields are located further from the non-site residences than almost all other fields in the City. The majority of the residences that would be exposed to the proposed field lighting are located outside park boundaries (in excess of 800 feet away from the fields) and above the elevation of the fields. Because of both the distance from and elevation above the lighted fields, the greatest impacts on these residents will be sky-glow and surface luminance. Sky-glow is the glow of light above the lighting installation consisting of 1) the light direct from the light source; 2) the light reflected off of the illuminated surface, and 3) the light reflected on airborne particles, and can vary greatly depending on climactic conditions. Surface luminance is the light reflected off of the lighted surface. Simply put, it is what we see when looking at a lighted surface that we wouldn't see if it were not lit. It is this surface luminance that would likely be the most noticeable impact to surrounding residences. The residences look over and down on the park and currently see expansive areas of unlighted park, Lake Washington and the lights of Kirkland beyond. The fields, when lit, will provide a bright foreground making the unlit areas, Lake Washington and the lights of Kirkland less visible. Those residences outside of park boundaries will have no measurable increase in light levels on their premises (spill light) and the vast majority will experience no direct glare, particularly since the hours are higher in elevation than the field lighting.

3. b. How did Parks estimate these impacts?

The EIS technical consultants estimated the impacts. Of the impacts described above, some can be calculated using accepted standards and some are more difficult to measure. Existing spill light can be measured in light levels (foot candles) at any given distance from a light source. Spill light can be accurately calculated using computer models of the proposed lighting technologies under proposed conditions, as was done to measure the impacts of the proposed plan. Glare cannot be quantified, but the presence or absence of direct glare from the luminary light source to a particular location can be identified based on luminaire type, height, and geographic features, as was done in estimating the impacts of the proposed project. Surface luminance and sky- glow are difficult to calculate, and vary greatly depending on climactic conditions. In assessing impacts of these, it is acknowledged they will exist with the proposed plan, but interpreting the impact to individuals is highly subjective.

3. c. What steps have you taken in the plan itself or elsewhere to minimize these impacts?

When the initial Sand Point Magnuson Park Plan was developed in 1997, the athletic fields were located to maximize the buffer provided by the buildings on the site. We have maintained this design in the current plan, keeping the on-site buildings as a buffer between the athletic fields and the residential community above. Several additional steps have been taken to minimize lighting impacts in the current plan. Based on extensive public comment, glare reduction was identified as a priority. In response, we selected lighting technology that had the least glare impact (full cut-off fixtures) and have proposed them on all but two of the lighted fields. Shielded conventional fixtures are proposed on the other two fields (baseball) because it is necessary to use technology that will project light more effectively for longer distances. Recognizing that there are changes in lighting technology, the Department intends to reevaluate the selection of lighting fixtures prior to actual installation to verify that we will use the best technology available for reducing light impacts. Field layout was modified to place these luminaries in the southernmost part of the complex where existing topography and vegetation could help minimize glare impacts.

The Department has also proposed using a lower level of lighting for the fields than desired by the field user groups. Lighting levels are established in 4 major classes. Class 1 is highest level and is used in professional fields such as Safeco and Seahawks Stadium. Class 4 is the lowest level of lighting for safe recreational play and is the level selected for the proposed fields.

Increased open space and increased vegetation act as buffers to help reduce spill light and glare as well. For example, an area similar to a neighborhood park is proposed west of the sports fields and adjacent to the existing onsite housing. This area consists of extensive plantings and berming of soils, picnic grounds, basketball courts, volleyball courts, etc. The design of the sports field complex and wetland habitat has been shaped by an effort to save the majority of existing trees near the fields and in the wetland/habitat complex. These trees, plus extensive new plantings of upland forest, will over time screen the lighting impact to the east, reducing the visibility of the fields from within the park and across Lake Washington.

4. a. It is my understanding that the Parks Board in reviewing your proposed plan, voted to recommend turning off the lights on all the fields at 10 PM. You are proposing to allow leaving those lights on up to 5 of the fields on until 11 PM. What is your reasoning for not conforming the Plan to the Parks Board recommendation?

The Board of Park Commissioners had a lengthy discussion about the proposal in general and about the hours of operation in particular. The vote on limiting the lighting hours to 10

pm was 3 in favor and 2 opposed. The Department proposal is the result of negotiations with the Low Income Housing Institute and the Sand Point Community Housing Association, the agencies that operate the transitional homeless housing at the Park. The proposed hours of operation were written into the Department's agreement with them (note that the agreement does not limit the City Council).

The limited hours of operation in the proposal already constitutes a compromise on the part of those people supporting expanded hours of operation of the fields and places limits beyond those already part of the Department policy for sport field lighting. Given the Park Board was clearly divided on the issue and that their recommendation resulted in an inconsistent application of the Department's policies, the Department made the decision to keep the proposed hours of operation. Current policy allows fields that are directly adjacent to residents on two sides of the field to be scheduled until 10 p.m. All other fields are scheduled until 11 p.m. We also note that fourteen of the nineteen lit park field sites are located south of the Ship Canal.

5. a. Even assuming the City needs the additional sports field capacity to be provided by the planned Magnuson Park fields, wouldn't it be preferable from the standpoint of user convenience and dispersion of neighborhood impacts to spread these new fields around the City?

The athletic field proposal for Sand Point Magnuson Park is a direct result of a system wide assessment and planning process. The 1997 JAFDP, updated in 2000, looks at all fields, and assessed demand and needs City-wide. The Sand Point Magnuson Park proposal was developed in the context of the JAFDP and the comprehensive planning for City athletic facilities. Twenty-eight field sites, including Sand Point Magnuson Park, were identified in the JAFDP as either fully or partially funded; another twenty-three were identified for future funding (Appendix A and B).

One of the objectives of the proposal is to redevelop Sand Point Magnuson Park into a multi-purpose regional park. The City Council approved the Concept Design in Resolution 30063 (11/99) which indicates the preferred development scenario for the Park. That is what the Department took as guidance for the objectives of the proposal. Dispersing the fields to other neighborhoods and having fewer fields at Sand Point Magnuson Park would be a clear departure from the Council approved Concept Design.

Sand Point Magnuson Park provides an unparalleled opportunity to develop athletic fields with relatively minor impacts on the surrounding community. Access to the Park is by Sand Point Way which is a major arterial connecting the University District and Lake City. It has convenient connection to Lake City Way to the north and NE 45h to the south. It is also served by NE 65th and NE 70th, both arterial streets that connect to 35th NE, 25th NE, 15th

NE and I-5 that provide north/south connections. Access to the park is achieved using arterial routes and minimizing impact on neighborhood residential streets.

If the proposed fields were spread to other Parks property the impacts would be dispersed closer to residential neighborhoods and would likely displace existing uses. Park properties such as Laurelhurst, Dahl, View Ridge, Meadowbrook, North Acres, Maple Leaf, Gilman, Gas Works, Mountlake and most others each have residents that live close by, have limited parking, are on neighborhood streets, or would require displacing other park activities without any replacement opportunities. The proposed fields at Sand Point Magnuson Park are farther away from residential properties than almost any other park property and so would have less light and noise impacts. The impacts of dispersing fields rather than developing a complex at Sand Point Magnuson Park would likely be greater than the proposal. Unless new park property was acquired, it is highly unlikely we would add this capacity to the system, particularly in Northeast Seattle.

5. b. Did you consider this? [Spreading the fields throughout the City]

See 5.a. above. Yes, this also was addressed in the Final Environmental Impact Statement section 2.5.4.

5. c. Why did you not recommend it?

The dispersal of the fields would not meet the objectives of the Concept Design as indicated above.

6. a Your Final Revised EIS for the plan suggests a high probability that the City legal standards for nighttime noise will be violated at some of the residences just south of the park - the Radford Court Apartments and proposed new low income housing nearby - due to summer use of the ball fields at the south end of the Park. What is your plan for monitoring and curtailing such noise?

The revised fields analysis contained in the December 2003 EIS addendum included several design changes, such as moving home plate away from the housing, that reduced noise impacts on adjacent housing from those identified in the FEIS, but still identified the possibility that intermittent noise levels in excess of city limits could occur after 10 PM. Noise levels would be proactively monitored during initial use to see if the noise produced is indeed in excess of maximum noise limits after 10 PM. Monitoring would include the use of sound level meters monitored and recorded in accordance with accepted scientific standards. Noise impacts will also be monitored based on feedback from the adjacent residents.

6. b. What will you do if the monitoring shows violations?

We are committed to modifying the use of the field, including ceasing play after 10 p.m. if the Noise Code limits are exceeded.

6. c. Are both the monitoring plan and any mitigation measures a part of the Executive's Plan?

Yes, they are addressed in the EIS and will become part of the Departments operating guidelines for the facility.

7. a. There has been some concern among the environmental community that constructing the sport fields will require filling some wetlands and that the new wetlands that will be constructed will not achieve the biological productivity targeted.

Given the physical conditions at Sand Point Magnuson Park, there will likely be some amount of wetland fill associated with the proposed athletic field development. Design of the 'boundary' between the proposed fields and the proposed habitat area was determined, in part, by the goal of protecting and preserving the most significant and complex recovering wetland *and* upland habitat patches present in existing conditions on the site. Identified wetland areas such as "Frog Pond", black cottonwood groves and upland stands of native madrone saplings were identified early on, and the designs, to every extent feasible, avoid direct impacts to these areas.

Prior to construction of any sports fields for the Park, the area of proposed alteration will be assessed for existing wetlands with both the City of Seattle Critical Areas staff and staff of the Seattle District Corps of Engineers. At the time of permit submittal for the Sports Meadow complex in the late winter of 2003, Department staff met with City of Seattle and Corps of Engineers regulatory staff to gain input on the regulatory implications of the proposed Sports Meadow complex. At that time, it was agreed with Corps of Engineers staff that prior to any further permit submittals for the remainder of sports field/wetland complex at Sand Point Magnuson, that all the wetlands within the existing site would be identified based on a procedure agreed to by City of Seattle and Army Corps wetland staff. This is required by City code and Federal law, and has been assumed by the Department staff and consultant team throughout the entire Master Planning and public input process. This intent and these requirements have been stated consistently at community meetings on the project and in direct 'one-on-one' meetings with Seattle Audubon staff at their offices in the summer of 2003.

The response to question 7. b. also responds to the portion of this question regarding the achievement of targeted biological productivity of the wetlands.

7. b. What assurances are there that the new wetlands will perform as intended?

An answer to the question of whether or not the proposed wetland areas will function properly is complex and requires a bit of explanation. We will first describe the features of the project that will heighten its likelihood for success, and then discuss some of the concerns we have been hearing from the community regarding wetland performance.

The design for the wetland habitat at Sand Point Magnuson is based on the current findings of the scientific literature on mitigation success/failure. It was designed, in part, based on the findings of two recent Department of Ecology reports, among others. The Sand Point Magnuson Park habitat project will be successful for a number of reasons:

- The design is based on the environmental conditions of the site;
- The hydrology has been analyzed by civil engineers and water patterns are documented for the site;
- Soils on the site will be augmented to achieve optimum results; and
- Construction oversight will be required as part of the permits required by the City for construction of the site.

The designs for the project are based on the best available information and design standards for habitat restoration currently available. The designs anticipate natural successional changes in these habitat areas over time, thus they are adaptive designs, able to reflect changes in site conditions that may come light during construction. In addition, the plans anticipate the inclusion of students and citizen volunteers becoming actively engaged in the design and implementation of the habitat areas.

The critical habitat design considerations identified during the June 2001 Wetland Forum were, to every extent feasible, included in the final design. The Forum included professional wetland ecologists, representatives of Seattle Audubon, and local citizen activists from the surrounding neighborhoods to engage in their hopes/dreams/concerns about the future habitat conditions on the site. Those habitat design elements were melded with the design parameters for the adjacent athletic fields to develop the integrated plan for Sand Point Magnuson Park.

This question, and the previous one citing concern among the environmental community about the performance of the wetlands, may be related to an oft-cited failure rate of 89% for wetland mitigation. The figure of 89 % failure of mitigation projects comes from the second

of two studies done in Washington State by the Department of Ecology by Johnson et al. (2002). Unfortunately, the 89 % number is taken out of context and, presented as such, implies that compensatory mitigation is not an appropriate action to undertake.

The statement of findings that there is an "89% failure rate for mitigation" is a misrepresented conclusion based on the following statement in the Executive Summary of the Phase 2 report:, "No enhancement projects were fully successful, while eight out of nine (89%) enhanced wetlands were minimally or not successful." What the Ecology report is stating is that the action of *enhancement*, as undertaken by the mitigation projects studied for the report, was found to be minimally or not successful, as compared to the actions of *restoration* or *creation* of wetland habitat. The Ecology report found that the attempts to enhance wetland functions, in an existing previously degraded wetland, "…were minimally or not successful." This means that efforts to increase the wetland functions in an area that was already wetland did not result in significant increases in the functions provided. The report does not conclude that compensatory mitigation overall has a failure rate of 89%. In fact, Ecology found that "79% of projects were at least somewhat (successful) achieving their ecologically relevant measures, while 63 % of projects at least partially compensated for the permitted wetland losses."

8. a. What is the total capital cost of implementing this plan?

The Full Master Plan Capital Cost estimate is $60,000,000, reflecting the total cost of the five stand alone phases, to be completed over many years (dependant largely on future funding). The individual phases have been designed as stand alone so that upon completion of any one phase, the project would be a fully functional and aesthetically complete park design if future phases were not pursued. Therefore, start-up of phase 1 and 2, for example, will not require that later phases must be constructed. In completing the design of a full master plan for the area, the Parks Department has a tool to assure that early phases of construction do not preclude later development (future phases) of wetland/habitat and fields. The master plan is particularly critical to determine how grading, water, drainage and wetlands will all ultimately work and flow as a single system, even though the system will be phased.

8. b. Of this, how much of the necessary funding has been secured to date?
Table 5 lists secured funding sources.

Table 5 -- Funding Sources

	Secured	2005 & Beyond - Planned	Total
2000 Pro Parks Levy - Athletic Fields	$2,900,000	$6,379,000	$9,279,000

Cumulative Reserve Fund (CRF) - Sports Meadow	$79,000	$535,000	$614,000
Interagency for Outdoor Recreation (IAC) - Sports meadow	$300,000	$0	$300,000
CRF Neighborhood - Entrance planning	$25,000	$0	$25,000
2000 Parks Levy - Wetland/habitat	$1,350,000	$1,650,000	$3,000,000
Shoreline Park Improvement Fund - Wetland/habitat	$500,000	$0	$500,000
WA Dept. of Community Trade and Economic Development (DCTED) - Wetland/habitat	$500,000	$0	$500,000
Total	***$5,654,000***	***$8,564,000***	***$14,218,000***

8. c. What part of the plan will available funding allow us to complete?

The project has expended $2,049,000. These funds have paid for the development of the design, hydrologic studies, program plans, and environmental review documents. A portion of the DCTED grant was targeted for construction activities and funded selected demolition of small structures and roads.

The $12,169,000 is the total funding available for the remainder of the project (Table 6). Approximately $100,000 will be used to complete the design and approval process. The remaining funds: will develop Phase 1, the multi-purpose sports meadow (which has a construction cost estimate of $3,200,000); will finalize the design, permitting and construct Phase 2; and would generally be split proportionally for the development of the wetland habitat area ($3,104,000) and athletic fields ($5,765,000). The final determination on the scope of Phase 2 will be made after Council action on the Master Plan is finalized. Parks generally expects to develop one soccer, one rugby, one baseball and one little league field and begin the wetland habitat development at the promontory ponds area. Also, athletic sports leagues are developing a proposal to raise funding for additional elements of the plan. Depending on the feasibility of their efforts, additional fields and wetland areas could be constructed.

Table 6
Available and Expended Funds

Source	**Amount**
Available funds	**$14,218,000**
Expended Funds:	
Planning	189,471
Design	$1,573,189
Construction	$286,387
Total expended to date	**$2,049,047**

Balance funding available	**$12,168,953**
Design approval and completion	$100,000
Phase 1: Multi-purpose sports meadow	3,200,000
Phase 2: Fields	$5,765,000
Phase 2: Wetland Habitat	$3,104,000

9. a. What is the total estimated annual O&M cost for the wetland-sports field complex once it has been completed?

The O&M costs indicated below are for Phase 1 and 2 only.

Table 7
Operations and Maintenance Costs (numbers in 1,000's)

O&M	2004	2005	2006	2007	2008	2009	Total
Uses							
SPMP – Wetlands Development	-	-	85	117	120	122	**444**
SPMP – Athletic Field Renovation	-	-	88	157	183	187	**615**
Sources (itemize)							
2000 Parks Levy Fund	-	-	173	274	303		**750**
TBD						309	**309**

Key Assumptions:

The above estimates reflect O&M costs for both the Sand Point Magnuson Park – Athletic Field Renovation and Sand Point Magnuson Park – Wetlands Development projects in Park's 2004-2009 Adopted CIP. Operational funding includes allowance for monitoring the success of the wetlands development.

9. b How much of this do you forecast will be met by user fees?

We have not developed a projection for what will be recovered through user fees, but will work on an estimate.

9. c. Will the wetlands need periodic major maintenance such as dredging to remove silt build up?

The sports field/habitat complex is designed to minimize/eliminate the opportunity for sediment to enter the wetlands onsite. All of the stormwater generated from the roads and parking within the project area is designed to pass through biofiltration swales and water quality treatment ponds before it ever enters the wetland habitat complex. It is assumed that the bioswales and/or the water quality treatment ponds may require some maintenance activities to assure maximum treatment conditions are maintained (such as removing self-seeding alder and willow saplings to maintain dense emergent vegetation within the swales). Any intense mechanized maintenance actions, such as sediment removal would occur within the bioswale/water quality treatment ponds, not within the habitat wetlands. A decision to try to keep the wetland habitats in a 'static state' by periodically removing the accumulation of natural sediments is not the intent of the design. The intent of the design is to create wetlands which will be sustainable within the
hydrologic regimes expected on the site, and within expected plant community succession patterns.

It is the intention of the habitat design to create a diversity of sustainable wetland and habitat communities, expected to mature and evolve over time in response to the natural environmental conditions of the site. The design is not dependent upon constant or regular human actions to maintain habitats in static states. It will be dependent upon regular maintenance for many years to control and remove the aggressive non-native species present on the site, but that is a different kind of maintenance action than attempting to arrest natural succession.

9. d. If so, is this included in your O & M estimate? [Wetland maintenance]

Yes.

10. a. How open and extensive was the public process?

The current design for the Sand Point Magnuson Park Wetland/Habitat & fields complex has been profoundly shaped through an extensive public involvement process. The public involvement can be broken into three distinct phases. The programmatic stages started in 1965 and culminated in 2001 with the council endorsed amended concept plan. The second

two phases, detailed below, consist of the Master Plan design phase and the environmental review phase.

In starting the Master Plan development, public involvement was recognized as a critical component, and a Public Involvement Plan was established by the design team's public facilitation consultant. The design schedule was structured to incorporate public input and key points in the design process based on that plan. Public meetings included*:

- "Wetlands Forum" focused on defining the wetlands development, completed over a Friday evening and a full Saturday.
- Two public workshops to present design mid-development (this meeting also served as a scoping hearing for the EIS process).
- Three "Focus group" meetings, one focused on the wetland/habitat development (after the Wetlands Forum), one focused on environmental education, and one focused on the athletic fields. All were open to the general public, but with an invited list of core user groups.
- "Special Issues" meeting which focused on specific concerns of participants (including Field Lighting), as well as comments on the overall design.
- Two " Field Lighting Education Nights" included field lighting information presented by the field lighting consultant, and exterior mock ups of three "poles" each exhibiting different lighting technologies, for comparison and feed-back from the neighbors.
- Several Project Advisory Team (PAT) meetings, with invited attendees representing the core constituencies of the project, held throughout the design process.
- Several Sand Point Communications Committee (SPCCC) meetings, with invited attendees representing all core constituencies of Magnuson Park and the surrounding neighborhoods.
- Presentation to the Seattle Design Commission.
- Participation in the "Design Open House", showcasing all on-going Magnuson projects with an opportunity to get project updates and discuss issues directly with the design team

The environmental review (SEPA) process started on the Master Plan with scoping (listed above) and continued with the following review/input opportunities:

- Draft EIS issued in January 2002, including month long comment period for written comments and a public hearing for testimony.

Based on comments, the design and the EIS analysis were revised, and the review process continued with:

- A final EIS was issued in July 2002 and was appealed on eight issues. The EIS adequacy was upheld on seven issues and one issue was remanded to address the effect of sports field noise on wildlife.
- Supplemental Draft EIS was issued, including a one month comment period for written comment and public hearing for testimony.

- Supplemental Final EIS was issued in May 2003 and was appealed. The adequacy of the Supplemental EIS was upheld.
- During the environmental review process, the project underwent discussion at three additional Park Board meetings, and two additional Design Commission reviews.

Based on environmental impacts detailed in the environmental review process, the design was further revised to reduce identified impacts, including lighting impacts. This "Revised Fields Alternative" was studied in an EIS addendum issued in December 2003, and is the current proposal.

* More specific information, specific dates, and notification methods are included in the "Public Outreach and Project Milestones" summary in the council briefing memo dated January 29th, 2004.

10. b. Did the public receive enough information regarding neighborhood impacts of lighting 11 fields to allow informed comment?

The public received extensive opportunities to learn about field lighting technology options, view lighting mock-ups onsite, and learn of locations around the region where they could see comparable systems and field lighting levels to visit. The public was also provided extensive opportunity to comment on the proposed field lighting.

10. c. What were the changes made to accommodate the public comments?

The current athletic complex and field lighting design have been greatly shaped by public comment and input. Based on the two "Lighting Education Nights", the public noted a strong preference for the full cut-off lighting technology, and noted that in reducing the effects of field lighting, their priority was to minimize glare issues (which the full cut-off fixtures does). For this reason, full cut-off fixtures are proposed on all but two fields. (The two-baseball fields will have shielded conventional to project light more effectively for the longer distances associated with those fields). The field lighting levels (brightness) were also a subject of much debate with users. Little league participants wanted class 3 (brighter) lights, and the neighboring community stated a preference for the class 4 lighting (the minimum allowable light levels). Based on community input, all fields are proposed to be lit to class 4 lighting levels.

Fields were relocated so that the baseball fields (with shielded conventional lighting & therefore greater glare) were located to the south where glare impacts would be better screened from existing housing to the west by existing topography. Increased buffer

distances were provided between fields and on-site housing, and these buffers are to be more heavily planted with trees and other vegetation to screen lighting and reduce lighting impacts. The hours of operation have been reduced requiring the field closest to the existing onsite housing (Santos' Place) to be off at 9 PM, 5 of the remaining fields off at 10 Pm and the final 5 off at 11 PM. A field priority was also established so that fields closest to onsite housing would be the lowest priority for use.

The wetland and habitat complex is a direct result of the public input gathered ate the wetland forum. The development of a variety of wetland and habitat types, preserving as much of the existing habitat areas as is feasible, maintaining an open water lagoon, are all items resulting from public comments.

Appendix B—Summary of Public Involvement

Warren G. Magnuson Park
Wetland/Habitat Complex and Sports Fields/Courts Project
Summary: Public Outreach and Project Milestones
February 2007

The planning and public participation process for Drainage, Wetland/Habitat Complex and Sports Fields and Courts Project has been on-going since 1999. Prior to 1999 (dating back to the early 1970s) there have been various planning efforts related to the development of Magnuson Park.

Project Advisory Team (PAT) meetings have occurred almost monthly during preparation of the schematic design and the environmental impact statement (since mid-2001). Sand Point Magnuson staff have made numerous presentations about the project, and the park in general, to neighborhood groups such as the Northeast District Council, Windermere North Community Association, Meadowbrook Community Club, View Ridge Community Council, Hawthorne Hills Community Club, etc.

Date	Activity	Description
July 1965	Recreation Plan	Publication of "Outdoor Recreation and Open Space Plan" by the Seattle Park Department and Seattle Planning Commission. Identified future acquisition of Naval Air Station for development as 340-acre "major park".
May 1975	Master Plan	Publication of Sand Point Park Master Plan, included proposed development of 75-acre "Interior Lands" for a Sports Meadow for multi-purpose play and team sports, adjoining tennis courts; a neighborhood park; maintenance complex, and restaurant. Appendix included statement by Sand Point Park Citizens Committee: "The Park is conceived as an active urban regional park. It is planned to provide for a wide variety of user activities, active as well as passive, organized as well as unstructured." (p 32).
June 1, 1976	FEIS Publication	Issuance of "Sand Point Park: A Final Statement on Impact". Proposed action included demolition of structures and runways, development of a sports meadow and drained playfields, North Cove

Date	Activity	Description
		Swimming Beach, boating center, and interior circulation system. Alternatives included the proposal, "More Active or Field Oriented Development", part of the Forward Thrust Development Plan. Of the 196-acre park, allocated 30-40 acres for field sports, a 5-acre neighborhood park, 5-acre maintenance complex, and a major restaurant concession. Additional "alternative would be to develop more of the site for group sport facilities" (p.72).
September 30, 1983	Navy Master Plan	Publication of "Base Exterior Architecture Design Guide, Naval Station Seattle, Washington". The Design Guide was to identify aesthetic measure to upgrade the appearance of the base. Five districts were identified, including "Outdoor Recreation" that covered the current Sand Point Fields and areas extending to NE 65th Street. A comprehensive development plan identified a number of priority areas, however, the existing sports fields were not included.
Late 1980s	Navy Master Plan	Publication of "Sand Point Site Development Master Plan, Naval Station Puget Sound". This document appears to have been prepared as part of the planning for Naval Station Everett, and the potential for using Naval Station Puget Sound for support facilities. Two baseball fields existing baseball fields were identified on the site of the current Sand Point Fields, but no improvements were proposed.
January 1989	Master Plan Update	Publication of "Master Plan Update Magnuson Park" by Seattle Department of Parks and Recreation". Of 36 improvement elements, included the development of a drainage wetland and wildlife sanctuary from on-site water runoff; constructed new sports field area north of Building 193 (Commissary) for up to 4 soccer fields, inclusion of Navy properties to the west for additional sports fields; construction of permanent bleacher seats at new soccer field area; and construction of regulation-size baseball field in the Sports Meadow. Included statement that the new soccer fields will be "unlit turf and not all-weather material due to neighbors view/aesthetic considerations.".
June 5, 1989	City Council Action	Resolution 27991, expressing the intent of The City of Seattle to secure portions of Naval Station Puget Sound for the expansion of Magnuson Park.

Date	Activity	Description
July 1, 1991	Federal Action	U.S. Base Realignment and Closure Commission recommended closure of Naval Station Puget Sound and requested the City of Seattle to lead the development of a reuse plan.
June 1992	City/Citizen Committee Action	Publication of "Draft Sand Point Community Plan: Preliminary Range of Alternative Uses for the Naval Station Puget Sound", produced jointly by the Seattle Planning Department and the Sand Point Community Liaison Committee. Included six conceptual alternatives for the 151-acre Sand Point campus.
September 1992	Planning Department Action	Publication of "Recommended Reuse Alternatives for the Naval Station Puget Sound, Sand Point" produced by the Seattle Planning Department. Included six conceptual alternatives for the 151-acre Sand Point campus.
October 27, 1992	City Council Action	Resolution 28626, authorizing the Seattle Planning Department to forward reuse alternatives to the U. S. Navy as the basis for a federal-led Environmental Impact Statement.
July 19, 1993	City Council Action	Resolution 28763, adopting Functional Plan (known as Parks and Recreation COMPLAN) for the Department of Parks and Recreation and adopting the Council's priorities and long term directions for Seattle's parks and recreation system.
September 8, 1993	Citizen Action	Publication of "Citizens Preferred Sand Point Reuse Plan" by Sand Point Community Liaison Committee. Proposed three zones for the expansion of Magnuson Park: North Recreation Zone, Central Recreation Zone, and a South Open Space Zone. In description of potential uses by zone (p. 6), stated that of the 50-acre central zone the sports fields would include "all kinds, some potentially with lighting, some all weather". In description of development standards, stated in the section lighting and glare that "all outdoor lighting to be shielded so as not to spill over into unintended areas." (p. 7).
November 22, 1993	City Council Action	Resolution 28832, adopted the Community Preferred Reuse Plan for Sand Point, and authorized the Seattle Planning Department to forward the Plan to the U. S. Navy anticipating closure of Naval Station Puget Sound. The Reuse Plan divided the base into six activity areas, including the Magnuson

Date	Activity	Description
		Park Open Space/Recreation Expansion Area. Included the statement, "further improvements would be needed to meet the burgeoning demand for sports field facilities." (p. 15).
December 6, 1993	City Council Action	Resolution 28839, authorizing the Superintendent of Parks and Recreation to submit an application with the National Park Service, to acquire portions of Naval Station Puget Sound at Sand Point for additions to Magnuson Park**.**
April 1994	Park and Recreation Action	Application submittal to the National Park Service for 151 acres of Naval Station Puget Sound. Included description of "sports fields and playground area" (current location of Sand Point Fields), development of softball field cloverleaf, additional soccer field construction to the north and east of existing Navy (Sand Point Fields).
April 29, 1994	Planning Commission Action	Planning Commission reviewed the Sand Point Reuse Plan. Meeting held at Seattle Center.
May 19, 1994	U.S. Navy Action	Publication of Draft Environmental Impact Statement – Sand Point, to assess the potential impacts from the reuse of Naval Station Puget Sound, by evaluating the City of Seattle Reuse Plan and the Muckleshoot Indian Tribe Reuse Plan.
December 1994	Citizen Action	Publication of "A Vision of Magnuson Park" by the Sand Point Community Liaison Committee. Included an "Organized Sports Zone". Proposed the consolidation of sports fields for "a more efficient use of available land", and that the "proximity to housing, the ease of management and maintenance are other notable benefits of this arrangement." Regarding programming, this plan stated "as a regional facility, scheduled activities could draw individuals and school teams from King and Snohomish counties.". For the proposed tennis center it noted the construction of 'four outdoor lighted courts".

Date	Activity	Description
October 23, 1996	FEIS Publication	Issuance of Sand Point Reuse Project Final Environmental Impact Statement by the Seattle Office of Management and Planning. The proposed action for the 151-acre area included amendments to the Seattle Comprehensive Plan, creation of the Sand Point Overlay (Zoning) District.
November 1996	U.S. Navy Action	Publication of Draft EIS, Reuse of Naval Station Puget Sound, Sand Point. Assesses the impacts of November 1993 Community Preferred Reuse Plan (City Plan), Muckleshoot Indian Tribe Proposed Reuse Plan, and a no-action alternative. Appendix A: Scoping Comments Summary, noted under the section Visual Resources, that "additional lighting and night glare associated with commercial activities, the sporting complexes and street lighting were also concerns raised." (p. B-6).
Spring 1997	Newsletter	First issue of "The Sand Pointer" a quarterly newsletter outlining current events and projects at Sand Point Magnuson Park.
June 16, 1997	City Council Action	Resolution 29429, approving the Sand Point Physical Development Management Plan. To guide the reuse of Naval Station Puget Sound by defining six activity areas within the 151-acre campus. The "Magnuson Park Open Space and Recreation Area" identified the inclusion of existing sports fields into the park (now known as Sand Point Fields), further improvements "to meet the burgeoning demand for sports fields facilities", the development of a softball cloverleaf – four softball diamonds – on near the south end of the Sand Point Fields, and additional soccer fields developed in the area between Magnuson Fields and Sand Point Fields.
Summer 1997	Newsletter	Second issue published of "The Sand Pointer" a quarterly newsletter outlining current events and projects at Sand Point Magnuson Park.
August 7, 1997	Design Commission	Review of Sand Point Design Guidelines by Seattle Design Commission.
September 6, 1997	Public Open House	Second annual Sand Point Open House Festival held. Included displays by future reuse participants on proposed uses at the park.
Fall/Winter 1997	Newsletter	Third issue published of "The Sand Pointer" a quarterly newsletter outlining current events and projects at Sand Point Magnuson Park.

Date	Activity	Description
October 1997	U.S. Navy Action	Publication of Final EIS, Reuse of Naval Station Puget Sound, Sand Point. Assesses the impacts of November 1993 Community Preferred Reuse Plan (City Plan), Muckleshoot Indian Tribe Proposed Reuse Plan, and a no-action alternative. Appendix A: Scoping Comments Summary, noted under the section Visual Resources, that "additional lighting and night glare associated with commercial activities, the sporting complexes and street lighting were also concerns raised." (p. B-6).
November 3, 1997	City Council Action	Resolution 29624, adopting the "Design Guidelines Manual for Sand Point / Magnuson Park. The guidelines were applied to the 151-acre site of former Naval Station Puget Sound. Five development framework plans were developed, including one for the Sand Point Fields ("Magnuson Park"), and includes the text: "Related support facilities (for athletic fields) must be identified and could include seating, lighting, restrooms, picnic areas, playgrounds and team locker rooms." "It is probable that major athletic tournaments will eventually be held here, so means for providing concessions and adequate parking will need to be identified." (p. 4-12) Under section, 4.1.1 Open Space and Recreation, design objectives were defined for athletic fields and included: "All playing field lighting, when and if provided, shall incorporate the most advanced technology in glare reduction lighting, to minimize light glare into residential neighborhoods and habitat areas (Figure 4.1.1.5). Field lighting shall not be utilized when the impact from lighting glare to neighborhoods or sensitive natural habitat areas is judged to be significant." (p. 4-22). Under section, 4.1.6 Lighting, technical guidelines were defined: "If athletic fields (in Sand Point) are lit for night-time play, only low-glare downlights which minimize off-site glare are permissible. Only the planned clover-leaf and adjacent fields may be lit. Glare into habitat areas is to be avoided, as it glare into neighborhoods." (p. 4-56) "Lighting of athletic fields at Magnuson Park (Sports Meadow – Magnuson Fields) is permitted only for those fields located in the former Navy athletic fields area. These lights must have glare cutoff features reducing or eliminating glare in neighborhoods or habitat areas." (p. 4-57)

Date	Activity	Description
December 18, 1997	Design Commission	On-site tour given to Commission members related to the Sand Point Reuse Plan.
Spring 1998	Newsletter	Fourth issue published of "The Sand Pointer" a quarterly newsletter outlining current events and projects at Sand Point Magnuson Park.
Summer 1998	Newsletter	Fifth issue published of "The Sand Pointer" a quarterly newsletter outlining current events and projects at Sand Point Magnuson Park.
August 20, 1998	Design Commission	Parks staff presentation on the Junior League of Seattle Playground.
September 3, 1998	Design Commission	Parks staff presentation with additional information on the Junior League of Seattle Playground.
Fall 1998	Newsletter	Sixth issue published of "The Sand Pointer" a quarterly newsletter outlining current events and projects at Sand Point Magnuson Park.
October 1, 1998	Design Commission	Parks staff presentation on the North Shore Recreation Area master planning process.
November 5, 1998	Design Commission	Parks staff briefing with an update on the Sand Point Reuse Plan.
Winter 1998/1999	Newsletter	Seventh issue published of "The Sand Pointer" a quarterly newsletter outlining current events and projects at Sand Point Magnuson Park. Majority of this issue reviewed the recommendations of the Sand Point Blue Ribbon Committee. The Sand Point Citizens Liaison Committee plan, "A Vision for Magnuson Park" published, showing "organized sports fields".
February 1999	Citizen Committee Action	Publication of "Report to the Mayor and Seattle City Council: Sand Point Blue Ribbon Committee". The Committee recommended that the "Citizens Plan" developed by the Citizens Sand Point Planning Association be used as the base plan for the Magnuson Park design process. Included 12 sports fields (7 ball fields and 5 soccer fields). Park Design recommendations included: "Sports fields Assessment. The Park design should review the number and location of sports fields; study the option of siting them to the north, adjacent to other activity zones, analyze the

Date	Activity	Description
		associated parking needs and provide for them; and develop cost estimates for use in capital planning and budgeting." (p. 6)
March -April 1999	Focus Group Sessions	Public focus group sessions held at Sand Point Magnuson Park, included consulting team led by Jones & Jones landscape architects.
Spring 1999	Newsletter	Eighth issue published of "The Sand Pointer" a quarterly newsletter outlining current events and projects at Sand Point Magnuson Park. Included article on the Phase I and II Park Design; to locate "all major park design elements including sports fields, environmental restoration areas……" (p. 2).
April 27, 1999	Public Workshop	Public Design Workshop held at Sand Point Magnuson Park.
Summer 1999	Newsletter	Ninth issue published of "The Sand Pointer" a quarterly newsletter outlining current events and projects at Sand Point Magnuson Park.
September 9, 1999	Design Commission	Parks staff and consultant presentation on the Magnuson (Sand Point) Park Concept Plan. Staff presented that the two major issues with the plan were Lake Washington access for the dog off-leash dog area, and "more lighting and all-weather surfaces on the sports fields."
September 20, 1999	City Council Public Hearing	
September 23, 1999	Park Board Meeting	Board of Park Commissioners meeting and recommendation.
November 1, 1999	City Council Action	Resolution 30063, providing additional guidance on the design for Magnuson Park; and superseding Resolution 29429 that adopted "The Physical Development Management Plan for Sand Point". Specific language from the resolution regarding sports fields:

Date	Activity	Description
		"Section 5. Sports field surface, lighting, and amenities. All 5 softball/baseball fields, the 6 outdoor tennis courts, and the 3 outdoor basketball courts will be lighted; and the 2 soccer fields adjacent to the cloverleaf of softball/baseball fields will be lighted and have all-weather playing surfaces. Furthermore, the two other soccer fields west of the sports meadow will be lighted and have all-weather playing surfaces, provided that, following a public outreach process, the Council decides any impacts of lighting on adjacent areas of the Park and on the neighborhood can be adequately mitigated. The Department of Parks and Recreation is directed to conduct a public process and report back to the Council with findings, possible impact mitigation measures and recommendations by December 31, 2000. Sports fields shall be served by two or more conveniently located comfort stations."
Winter 2000	Newsletter	Tenth issue published of "The Sand Pointer" a quarterly newsletter outlining current events and projects at Sand Point Magnuson Park. Included article on adoption by City Council of the Magnuson Park Concept Design; where "…Council also voted to add lighting and synthetic surfacing to four proposed soccer fields……" (p. 1). A map of the concept design was also included (pgs. 4-5).
June 19, 2000	City Council Action	Resolution 30181, adopting the Seattle Park and Recreation Plan 2000: This was an Update to the 1993 Parks Comp plan. The following excerpts identify policies or programs related to sports fields and environmental education at Sand Point Magnuson. Policy Statement: Partner for Recreation Development of Park & Recreation Facilities Primary Roles & Responsibilities • "5. Participate in regional planning for an adequate geographic distribution of golf courses, boating facilities, sports field complexes,……." (p. 14.). Policies o "9. Improve sports fields to ensure playability. Improvements such as synthetic turf and lighting on selected fields will be considered to increase scheduling capacity where

Date	Activity	Description
		appropriate and where adverse neighborhood impacts as identified in public involvement processes can be mitigated. Such improvements will be identified in an update to the Joint Athletic Field Development Program." (p. 16). 6-Year Action Plan Development of Park & Recreation Facilities Sports fields "SF2: Complete the sports meadow at Magnuson Park (design in 2000)." "SF3: Develop new sports fields at Sand Point per the 1999 Magnuson Park Concept Design, and provide facilities for softball, baseball, soccer, rugby, and track and field. Provide floodlighting on such fields per the plan." (p. 57) Environmental Education Environmental Education Programming EEP1: "….Develop new environmental education programs at Seward Park and Magnuson Park….." (p. 86)
July 20, 2000	Design Commission	Staff presentation on the Magnuson Community Garden.
December 7, 2000	Design Commission	Staff presentation on the North Shore Recreation Area Master Plan.
December 9, 2000	Public Meeting	Public Open House held at Sand Point Magnuson Park to present current projects.
March 2000	Public Design Workshop	Yearly public design workshop where all current Sand Point Magnuson projects are presented.
January 11, 2001	Park Board	Sand Point Magnuson staff presentation and board discussion.

Date	Activity	Description
January 18, 2001	Design Commission	Staff presentation on revisions to the original Jones and Jones Plan including: • reconfiguring the baseball fields so that players will not be facing south • including 15 sports-fields with artificial all-weather surfaces providing field lighting
January 25, 2001	Park Board	Board of Park Commissioners held public meeting on proposed sports field configuration.
February 8, 2001	Park Board	Board of Park Commissioners unanimously endorsed the proposed configuration.
March 30, 2001	Public Design Workshop	Public Design Workshop held at Sand Point Magnuson Park to present park-wide projects.
March – May 2001	Focus Groups	A select number of people were invited to participate in three different focus groups. One on salmon habitat/wetlands creation, another on stormwater/drainage, and the third on environmental education. Each group was composed of environmental, design/engineering or education professionals, and met to discuss the viability of creating a wetland that could support salmon rearing habitat using on-site stormwater. The third group looked at the items to think about in providing a base for environmental education. The issues identified by these groups were used in developing a three-day Wetlands Forum. **Notification method: individual e-mails and letters**
March 2001	Spring 2001 Quarterly Newsletter	This first newsletter, "Wetlands Update" was published and distributed to households in northeast Seattle. Notified the public about the May-June Wetland Forum activities as well as other recreation events to occur in the park.
April 2, 2001	City Council Action	Resolution 30293, providing additional guidance on the design for Magnuson Park, and amending the Magnuson Park Conceptual Design as approved in Resolution 30063.
May 31 – June 2, 2001	Wetland Forum	This forum was held on two days, May 31st and June 2nd, with one of the highlights being an all-day design workshop. About 75 environmental and design professionals, sports field advocates and neighborhood representatives attended this workshop and developed three concept plans for the wetland/habitat areas. These concept plans were forwarded to the design consulting team led by The Berger Partnership.

Date	Activity	Description
August 2001	Fall 2001 Quarterly Newsletter	Second newsletter, "Public Meetings Update" was published and distributed to households in northeast Seattle. Notified the public about the upcoming EIS scooping meeting, and the first lighting demonstration, as well as other recreation events to occur in the park.
August 24, 2001	Scoping Document Distribution	Seattle Parks and Recreation issued Determination of Significance (decision that an EIS is required) and a supporting EIS Scoping Document that was distributed to public agencies, affected tribes, organizations, and the public. Notice public in the King County official newspaper, The Daily Journal of Commerce. The Department indicated that formal scoping comments would be accepted during a public comment period that ended September 28, 2001.
September 2001	Focus Group Post-Forum Follow-up	Series of public meetings were held to present preliminary concepts to three different focus groups – wetlands/habitat, sports fields, and environmental education. Of course, these meetings were open to the general public. In mid-September two other meetings were held where the public could address which elements should be analyzed in the environmental impact statement.
September 18, 2001	EIS Scoping Public Meeting	To provide additional opportunity for public comment concerning the scope of the EIS, the first of two public meetings was held from 7:30 – 9:30 a.m., with opportunity for oral comments on the EIS scope beginning at 8:30 a.m. The meeting was held in the Sand Point Magnuson Park Community Activity Center (Building 406), 7400 Sand Point Way NE. Both meetings were advertised in local newspapers, in the Sand Point Magnuson Park quarterly newsletter, and by direct mail invitation distributed to 15,000 households in the general vicinity of the park.
September 19, 2001	EIS Scoping Public Meeting	To provide additional opportunity for public comment concerning the scope of the EIS, second of two public meetings was held from 5:30 p.m. to 8:30 p.m. with opportunity for oral comments on the EIS scope beginning at 7:30 p.m. The meeting was held in the Sand Point Magnuson Park Community Activity Center (Building 406), 7400 Sand Point Way NE. Both meetings were advertised in local newspapers, in the Sand Point Magnuson Park quarterly newsletter, and by direct mail invitation distributed to 15,000 households in the general vicinity of the park.

Date	Activity	Description
October 2001	EIS Scoping Document	Scoping Document was published and available for public comment. This document and its timeframe for comment was mandated under the State Environmental Policy Act (SEPA) process.
October 8, 2001	Lighting Demonstration	First of two lighting demonstration meetings were held at Sand Point Magnuson Park. The purpose of this meeting was to both educate the public about sports lighting concepts/technologies, and to have live lighting set up in the park. Interested parties were invited to an informational meeting at the Sand Point Magnuson Park Community Activity Center (Building 406), 7400 Sand Point Way NE, from 7 to 10 p.m.
October 22, 2001	Issue-specific Meeting	This meeting was also held at the Sand Point Magnuson Park Community Activity Center. Following a brief presentation on the proposed project, participants were invited to ask questions about any type of issue or concern they held regarding the project.
November 1, 2001	Design Commission	Staff presentation updating the Commission on all projects within the park. Commission comment included: *"supports the wetlands and athletic fields' design and recommends that the team retains strong planning geometries and organizations"*
November 28, 2001	Lighting Demonstration	In response to the level of interest and questions at the October 8 lighting demonstration, a second meeting was held to demonstrate newer lighting technologies.
January 3, 2002	Draft EIS Published	Public and agency review of the Draft EIS began officially on this date, when the Department of Parks and Recreation filed the Draft EIS with the Washington Department of Ecology. At the same time, notices that the EIS was available for review were published in the SEPA Register and in local newspapers of general circulation.
January 2002	January 2002 Quarterly Newsletter	Third newsletter, "Draft Environmental Impact Statement" was published and distributed to households in northeast Seattle. Presented to the public the alternatives contained in the EIS, in both textual and graphic formats. Notified the public of the upcoming public hearing on the DEIS.
February 4, 2002	Draft EIS Public Hearing	Public hearing held near the middle of the Draft EIS review period, to provide an additional opportunity for public comment on the contents of the Draft EIS. Fifty-five of those in attendance

Date	Activity	Description
		provided comments on the Draft EIS in the form of verbal testimony. By the end of the comment period the Parks Department also received written or telephone input concerning the Draft EIS from approximately 400 agency, organization and individual sources.
March 30, 2002	General Design Open House	Sand Point Magnuson Park hosted a general "Design Open House" that showcased the major projects underway or anticipated at Sand Point Magnuson Park. The open house featured the drainage, wetland/habitat and sports fields/courts project with displays tables and opportunity for the public to talk directly with the design team.
May 16, 2002	Design Commission	Staff presentation updating the Commission on all projects within the park.
July 12, 2002	Publish Final EIS	Final EIS published and distributed to more than 80 public agencies, to northeast Seattle Public Library Branches, regional King County Library System Libraries, and local newspapers.
July 25, 2002	Park Board Action	Board of Park Commissioners public hearing on the Final EIS.
August 22, 2002	Park Board Action	Board of Park Commissioners discussion on the Final EIS.
March 2003	2003 Volume 1 Newsletter	Newsletter, "The Transformation Continues" was published and distributed to households in northeast Seattle. Presented an update of the project, noting expected date of phase 1 construction in July 2003.
March 21, 2003	Publish Draft Supplemental EIS	The scope for the Supplemental EIS was determined by the hearing examiner's February 26, 2003 decision on the adequacy appeal of the original EIS.
April 7, 2003	Supplemental EIS Public Hearing	A public meeting was held near the middle of the Draft SEIS review period, to provide opportunity for public comment on the Draft SEIS. Thirty-eight of those in attendance provided comments on the Draft SEIS in the form of verbal testimony. By the end of the comment period the Parks Department also received 23 written or electronic mail messages concerning the Draft EIS from agency, organization and individual sources.

Date	Activity	Description
May 16, 2003	Final Supple-mental EIS	Final SEIS published.
June 12, 2003	Park Board	Board of Park Commissioners meeting to discuss recommendation on FEIS. Public hearing, including oral and written testimony occurred July 2002.
August 11, 2003	Office of the Hearing Examiner	Hearing held at the Office of the Hearing Examiner on the adequacy of the analysis in the Final SEIS.
October 23, 2003	Park Board	Board of Park Commissioners makes recommendations about the project design and hours of operation. The Commissioners unanimously recommend a slight alteration in the field configuration and that a technical advisory committee be established for implementation of the wetlands. By a 3-2 vote they recommend that athletic field light go off by 10 pm.
December 2003	Addendum to EIS	An addendum to the Environmental Impact Statement is issued documenting the potential changes in impacts based on the proposal as it has evolved since the FEIS and SEIS were completed. Notification method: addendum was available for review at Sand Point Magnuson Park offices, online on the Seattle Parks and Recreation website, a listing was published in the Washington Department of Ecology SEPA Register, public notice was published in the Daily Journal of Commerce, e-mail notification was sent to Sand Point Community Communication members, northeast Seattle community council contacts, and parties of record.
December 2003	Winter 2004 Quarterly Newsletter	Newsletter, "From Vision to Reality" was published and distributed to households in northeast Seattle. Included an update of the project and the likely public process in 2004.
February-March 2004		Seattle Parks and Recreation briefed the City Council Parks, Neighborhoods & Education Committee on the project.
April 5, 2004		Seattle Parks and Recreation presented the project to the entire City Council.
June 14, 2004		Full City Council approval of the master plan.

Date	Activity	Description
February 15, 2005	Project Advisory Team Meeting #1	Meeting Objectives: Phase 2 – Full Project Wetland Delineation Methodology; Phase 2 scope of work presentation and discussion; Update of Phase 1 construction: Multi-purpose meadow
March 15, 2005	Project Advisory Team Meeting #2	Meeting Objectives: Phase 2 –Wetland Delineation Update; Phase 2 Update; Phase 1-A update
May 31, 2005	Project Advisory Team Meeting #3	Meeting Objectives: 1. Phase 1 Construction Update; 2. Wetland Delineation Update; 3. Site Design Layout
June 21, 2005	Project Advisory Team Meeting #4	Meeting Objectives: Phase 1- Sports Meadow Construction Update; Wetland Delineation Update:
July 19, 2005	Project Advisory Team Meeting #5	Meeting Objectives: Phase 2 – Site Design
August 16, 2005	Project Advisory Team Meeting #6	Meeting Objectives: Community comments; Site Design Layout; Open Discussion: Site Layout; WL Delineation Report
September 20, 2005	Project Advisory Team Meeting #7	Meeting Objectives: Community comments; Site Design Layout; Open Discussion: Site Layout; WL Delineation Update
October 18, 2005	Project Advisory Team Meeting #8	Meeting Objectives: Community comments; Wetland Plant Community Selection; Open Discussion: Wetland Plant Community
November 15, 2005	Project Advisory Team Meeting #9	Meeting Objectives: Community comments; Wetland Plant Community Selection; Open Discussion: Wetland Plant Community
December 20, 2005	Project Advisory Team Meeting #10	Meeting Objectives: Community comments; Wetland Plant Community Selection; Open Discussion: Wetland Plant Community
January 17, 2006	Project Advisory Team Meeting #11	Meeting Objectives: Community comments; Project Summary; Open Discussion

Date	Activity	Description
February 28, 2006	Project Advisory Team Meeting #12	Meeting Objectives: Community comments; Project Summary; Open Discussion
March 20, 2006	Project Advisory Team Meeting #13	Meeting Objectives: Community comments; Project Summary; Open Discussion